

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION

TEXTRON INNOVATIONS INC.\*

\* April 20, 2023

vs.

\*

\* CIVIL ACTION NO. 6:21-CV-740

SZ DJI TECHNOLOGY CO.,  
LTD. ET AL

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BEFORE THE HONORABLE ALAN D ALBRIGHT  
JURY TRIAL PROCEEDINGS

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08:39 1 (Hearing begins.)

08:39 2 THE BAILIFF: All rise.

08:39 3 THE COURT: Thank you. You may be

08:39 4 seated.

08:39 5 Good morning, everyone.

08:40 6 Mr. Siegmund?

08:40 7 MR. SIEGMUND: Good morning, Your Honor.

08:40 8 Mark Siegmund on behalf of the plaintiff.

08:40 9 I think just a couple of housekeeping

08:40 10 things, Your Honor. Both sides filed objections to

08:40 11 Judge Gilliland's report and recommendations on various

08:40 12 issues, and I'm --

08:40 13 THE COURT: I'll overrule those for the

08:40 14 record.

08:40 15 MR. SIEGMUND: Okay. Great. That was my

08:40 16 question. We have not filed a response to those. I'm

08:40 17 assuming you don't need one since --

08:40 18 THE COURT: I don't need one.

08:40 19 MR. SIEGMUND: Okay. Great.

08:40 20 And then the other issue is, I guess,

08:40 21 timing and how you want Rule 50 motions.

08:40 22 Are those going to be oral? Do you want

08:40 23 a written response? What is kind of the Court's

08:40 24 preference?

08:40 25 THE COURT: You know, I always try to

08:40 1 defer to you all about what you think protects you the  
08:40 2 most since I knew so little about how to do that  
08:40 3 myself.

08:40 4 But what typically we have done is -- by  
08:40 5 agreement of parties, is have them done orally. In  
08:40 6 this case, y'all have agreed to do them at the end of  
08:40 7 the evidence, and we'll do them then.

08:40 8 And then, generally speaking, the parties  
08:40 9 have submitted written briefs as well, but I rule on  
08:41 10 the oral motions. And if you all are okay with that,  
08:41 11 that's typically what I've done. And so that's -- that  
08:41 12 would be what I would propose.

08:41 13 MR. SIEGMUND: Okay.

08:41 14 THE COURT: If the parties are okay with  
08:41 15 that.

08:41 16 MR. SCHROEDER: Yeah, Your Honor. And  
08:41 17 just for -- good morning, Your Honor. Jacob Schroeder  
08:41 18 from Finnegan on behalf of defendants.

08:41 19 Is Your Honor's preference that we would  
08:41 20 do the oral at the close of evidence before the charge?

08:41 21 THE COURT: Oh, yes.

08:41 22 MR. SCHROEDER: Okay. Yeah. And then  
08:41 23 could we --

08:41 24 THE COURT: But let me say here not to be  
08:41 25 too lawyerly, but again, I had thought you were going

08:41 1 to do it at the end of your evidence as opposed to  
08:41 2 the -- because they're going to have a rebuttal case.

08:41 3 Again, I'm agnostic. I'll do it --  
08:41 4 whatever you all want to do is fine with me, but the  
08:41 5 way I had understood it, the motions were going to be  
08:41 6 made at the end of your case.

08:41 7 If you want to do it, then we can. And  
08:41 8 then we can do them again after we hear their rebuttal  
08:42 9 expert. We can wait until we hear the rebuttal expert.  
08:42 10 I don't care.

08:42 11 MR. SCHROEDER: Propose we wait until all  
08:42 12 the evidence is in and then just get it out before the  
08:42 13 charge. And then we would like to file a written  
08:42 14 Rule 50 --

08:42 15 THE COURT: You're more than welcome to.  
08:42 16 MR. SCHROEDER: -- get that on file  
08:42 17 tomorrow morning before closing.

08:42 18 THE COURT: Sure.

08:42 19 MR. SIEGMUND: And then on that,  
08:42 20 Your Honor, that's totally -- we don't care, but do  
08:42 21 you -- when is our deadline to respond to the written  
08:42 22 Rule 50 motion?

08:42 23 THE COURT: Given that they're going to  
08:42 24 be overruled before the -- well, let me say, the only  
08:42 25 one I will take up -- I will take up -- let me say it

08:42 1 to protect my record. But the one I will most  
08:42 2 seriously consider will be, I anticipate, a motion on  
08:42 3 willfulness from the defendant.

08:42 4 And I will -- I will want to hear -- and  
08:42 5 maybe at the end of today, after we're done with the  
08:42 6 evidence, we can take that one up. Because I really  
08:42 7 would like -- I think that in this case deserves --  
08:42 8 it's been hard fought. And also I've been listening to  
08:43 9 evidence about what the defendant did, your client did  
08:43 10 and all that.

08:43 11 And so we ought -- I think we ought to  
08:43 12 spend whatever time that you, the defendant, think you  
08:43 13 want to have me hear arguments, and we can do that  
08:43 14 today --

08:43 15 MR. SCHROEDER: Okay.

08:43 16 THE COURT: -- when we finish up with  
08:43 17 their expert on invalidity.

08:43 18 The others I think -- I can't think of a  
08:43 19 motion either one of you all would have that I would  
08:43 20 consider granting as a directed verdict other than that  
08:43 21 one.

08:43 22 And I'm not forecasting I am going to  
08:43 23 grant it. I'm just saying it's the one that we take  
08:43 24 up -- I routinely take up and decide whether or not to  
08:43 25 submit to the jury.

08:43 1                   And then I'm also -- once I've heard  
08:43 2 everything, I may or may not prognosticate -- sometimes  
08:43 3 I have, sometimes I haven't -- the likelihood, if even  
08:43 4 there were a willfulness finding, whether or not I  
08:43 5 would, you know, find it an exceptional case. And I  
08:43 6 might let you all know that at the end of the arguments  
08:43 7 today too.

08:44 8                   But with regard to the others, that's the  
08:44 9 only one I think that there is a serious chance of me  
08:44 10 granting --

08:44 11                   MR. SCHROEDER: Okay.

08:44 12                   THE COURT: -- if that helps you all.

08:44 13                   MR. SCHROEDER: Thank you, Your Honor.

08:44 14                   MR. SIEGMUND: It does. Thank you.

08:44 15                   MR. SCHROEDER: There was one other item.

08:44 16 The parties have agreed as far as the physical  
08:44 17 exhibits, the drones that we have entered into  
08:44 18 evidence, that that can go back to the jury room so  
08:44 19 long as the battery --

08:44 20                   THE COURT: They can't go.

08:44 21                   MR. SCHROEDER: -- is removed, is what  
08:44 22 we -- would that be okay?

08:44 23                   THE COURT: We can't do that.

08:44 24                   MR. SCHROEDER: Okay.

08:44 25                   THE COURT: Yeah. I mean, that's -- and

08:44 1 so you can take photos of them and send the photos  
08:44 2 back, but we can't have the physical ones going back.

08:44 3 MR. SCHROEDER: Even with the batteries  
08:44 4 removed?

08:44 5 THE COURT: It has nothing to do with the  
08:44 6 batteries -- I'm not an airport, and so it wouldn't  
08:44 7 matter what they were. They can't go back.

08:44 8 MR. SCHROEDER: Thank you, Your Honor.

08:44 9 THE COURT: Mr. Palmer?

08:44 10 MR. PALMER: I was just going to ask a  
08:44 11 question.

08:44 12 Could we publish that to the jury so they  
08:44 13 could at least hold it during the -- outside, out here  
08:44 14 and --

08:44 15 THE COURT: I'm not sure what you mean --  
08:44 16 I'm not sure the timing of the publishing.

08:45 17 I'm sure I'll let you do it, but I'm  
08:45 18 not sure what you're asking for.

08:45 19 MR. PALMER: Yes, Your Honor. Just  
08:45 20 because we're talking about that exhibit not being able  
08:45 21 to physically go back there where they could actually  
08:45 22 hold it, and they've never held it, we would like to  
08:45 23 publish that at some time today.

08:45 24 THE COURT: You'd like to let  
08:45 25 them physically --

08:45 1 MR. PALMER: Yeah. Pass it to each other  
08:45 2 and see what it feels like and look at it.

08:45 3 THE COURT: I don't --

08:45 4 MR. SIEGMUND: I guess our question would  
08:45 5 be why and the timing, Your Honor. I mean, if we  
08:45 6 instruct them and they go back to deliberate, I mean,  
08:45 7 are they going to sit out here and pass it around?

08:45 8 THE COURT: No. I think they're talking  
08:45 9 about during their case. They're not talking about --  
08:45 10 I think they are talking about while they have a  
08:45 11 witness on the stand, most likely, I would assume,  
08:45 12 this -- the doctor who's testifying, they'd like to  
08:45 13 publish -- they'd like to hand it out to the jury.

08:45 14 MR. SIEGMUND: I think we probably just  
08:45 15 object on relevance and it's -- and stand on that,  
08:45 16 Your Honor. I don't know why that would matter, but...

08:45 17 THE COURT: I don't have a -- you can  
08:45 18 have them. You can distribute it.

08:45 19 Anything else?

08:46 20 Yes, sir.

08:46 21 MR. HIGH: Thank you, Your Honor. This  
08:46 22 is Bob High for the defendants.

08:46 23 We just have one objection on one slide.

08:46 24 THE COURT: Okay. Okay. The slide is  
08:46 25 Slide 6 of their rebuttal --

08:46 1 MR. HIGH: Dr. Michalson's rebuttal  
08:46 2 expert, and we think this is a misstatement of the law  
08:46 3 and not really the place of the technical expert to be  
08:46 4 telling the jury what the legal standard is for  
08:46 5 obviousness.

08:46 6 And specifically, we don't think there's  
08:46 7 any requirement that an element be missing from a  
08:46 8 reference. We think you can have obviousness if all of  
08:46 9 the elements are --

08:46 10 THE COURT: You're right. I mean, you  
08:46 11 can have a -- I mean, this is -- this is -- the first  
08:46 12 sentence is not right. The first sentence is not the  
08:46 13 law, and it's frightening to me that I know that, but  
08:46 14 only because I've had single-reference obviousness  
08:46 15 arguments that have been made.

08:46 16 So if -- if -- on the other hand, I think  
08:47 17 all that the plaintiff is trying to say is, you know,  
08:47 18 that in this situation -- I'm guessing there's a  
08:47 19 combination here. I'm guessing y'all are using a  
08:47 20 combination and they're attacking that.

08:47 21 MR. HIGH: So we're relying on  
08:47 22 single-reference obviousness.

08:47 23 THE COURT: You are?

24 MR. HIGH: Yes.

08:47 25 THE COURT: Well, then this can't come

08:47 1 in.

08:47 2 MR. HIGH: Okay. Thank you.

08:47 3 THE COURT: Okay. Anything else?

08:47 4 MR. SIEGMUND: No, Your Honor.

08:47 5 THE COURT: Okay. We'll -- as soon as --

08:47 6 is the jury all here?

08:47 7 If you all will wait five minutes, we'll

08:47 8 bring the jury in.

08:47 9 THE BAILIFF: All rise.

08:47 10 (Recess taken.)

08:55 11 THE BAILIFF: All rise.

08:55 12 THE COURT: Please remain standing for

08:55 13 the jury.

08:55 14 (Jury entered the courtroom.)

08:55 15 THE COURT: Thank you. You may be

08:55 16 seated.

08:55 17 Counsel?

08:55 18 MR. SCHLESINGER: Thank you.

08:55 19 Ben Schlesinger again from Finnegan on behalf of DJI.

08:55 20 DIRECT EXAMINATION CONTINUED

08:55 21 BY MR. SCHLESINGER:

08:55 22 Q. Good morning.

08:55 23 A. Good morning.

08:55 24 Q. Yesterday we talked about noninfringement.

08:55 25 I'd like to switch gears a little bit and move over to

08:55 1 whether the patents are valid.

08:55 2 First off, let's start with the '909 patent.

08:56 3 Are you familiar with the concept of a person  
08:56 4 of ordinary skill in the art?

08:56 5 A. Yes. I am.

08:56 6 Q. Do you have an opinion on who would be a  
08:56 7 person of ordinary skill in the art with respect to the  
08:56 8 '909 patent?

08:56 9 A. I do. I've prepared a slide on that that you  
08:56 10 can all see now.

08:56 11 Q. And what is that opinion?

08:56 12 A. That opinion as described here is: It's  
08:56 13 somebody who has a degree in a field related to what  
08:56 14 this patent is talking about, such as mechanical  
08:56 15 engineering, robotics, electrical engineering, and, of  
08:56 16 course, somebody knowledgeable about flying, and as  
08:56 17 well somebody who has some experience developing or  
08:56 18 evaluating or designing these systems.

08:56 19 And of course, if you have lots of experience  
08:56 20 on the field, that's just as important as education.

08:56 21 Q. Thank you.

08:56 22 Now, let's turn to the asserted claims.

08:56 23 Can you remind us which claims are asserted in  
08:56 24 this case?

08:56 25 A. Sure. The '909 patent has four claims

08:57 1 specifically that were asserted. The two big ones you  
08:57 2 see on the left, the independent claims, and then the  
08:57 3 two smaller dependent claims. So 1, 7, 10 and 11.

08:57 4 Q. Are these all of the claims in the '909  
08:57 5 patent?

08:57 6 A. No. The '909 patent has many, many claims.  
08:57 7 These are the only four that are asserted in this case  
08:57 8 against DJI.

08:57 9 Q. So if the jury agrees with you that the  
08:57 10 asserted claims are invalid, does that mean all of the  
08:57 11 claims of the '909 patent are invalid?

08:57 12 A. No.

08:57 13 Q. What does it mean?

08:57 14 A. Just that these four are invalid.

08:57 15 Q. Would you please turn to Tab DX-345, which is  
08:57 16 Defendants' Exhibit 345?

08:57 17 A. I'm going there. I'm there.

08:57 18 Q. What is this?

08:57 19 A. This is a patent issued by the United States  
08:57 20 Patent Office. It's -- we call it the Frink patent.

08:58 21 Q. And how does the Frink patent relate to the --  
08:58 22 your opinions with respect to the validity of the '909  
08:58 23 claims?

08:58 24 A. When I looked at what's been done before the  
08:58 25 '909 patent, what had other peoples invented

08:58 1 previously, I looked at this patent because it's done  
08:58 2 previously, and so it informs my understanding of  
08:58 3 invalidity.

08:58 4 Q. What is the basis of your opinion on -- with  
08:58 5 respect to whether the Claims 1, 7, 10 and 11 of the  
08:58 6 '909 patent are valid or invalid?

08:58 7 A. I believe that Frink anticipates and renders  
08:58 8 obvious those claims.

08:58 9 MR. SCHLESINGER: Your Honor, DJI moves  
08:58 10 to admit DX-345.

08:58 11 MR. RICH: No objection.

08:58 12 THE COURT: It'll be admitted.

08:58 13 MR. SCHLESINGER: Could we please pull up  
08:58 14 DX-345, and let's put it on the left side, and pull up  
08:58 15 the '909 patent and put it on the right side.

08:59 16 And could you blow up the filing dates of  
08:59 17 each?

08:59 18 BY MR. SCHLESINGER:

08:59 19 Q. When was the Frink patent -- Mr. Frink's  
08:59 20 patent filed?

08:59 21 A. On June of 2002.

08:59 22 Q. When was the '909 patent filed?

08:59 23 A. In March of 2004, almost two years later.

08:59 24 Q. Does the Frink patent qualify as prior art to  
08:59 25 the '909 patent?

08:59 1 A. Yes.

08:59 2 Q. Why is that?

08:59 3 A. Because it was filed earlier and was available

09:00 4 before.

09:00 5 Q. And you mentioned that the Frink patent was

09:00 6 obviously a patent.

09:00 7 Q. What's the patent number for Mr. Frink's

09:00 8 patent?

09:00 9 A. It's listed up here. It's 6,868,314.

09:00 10 Q. And what's the patent number for what we've

09:00 11 been calling the '909 patent?

09:00 12 A. That's right here. 8,014,909.

09:00 13 MR. SCHLESINGER: Can we go back to the

09:00 14 slides, please?

09:00 15 BY MR. SCHLESINGER:

09:00 16 Q. Can you remind us what the '909 patent is

09:00 17 about?

09:00 18 A. Sure. We talked about it kind of two patents

09:00 19 ago, but it was all about this idea that you have a

09:00 20 ship bucking in the ocean, for example, and you're

09:00 21 trying to approach it. So what are all the information

09:00 22 you need to get, like position and movement, so you can

09:00 23 approach it to, for instance, land on that ship.

09:01 24 Q. When the Patent Office evaluated the '909

09:01 25 patent, it did not have knowledge of the Frink patent;

09:01 1 is that right?

09:01 2 A. That's correct.

09:01 3 Q. How do you know that?

09:01 4 A. Well, the Patent Office, on the front of the  
09:01 5 patent here, they list all the references that they  
09:01 6 knew about.

09:01 7 MR. SCHLESINGER: And why don't we bring  
09:01 8 up the '909 patent directly so it's a little bigger.

09:01 9 A. Yeah. It's small.

09:01 10 BY MR. SCHLESINGER:

09:01 11 Q. And what are you circling?

09:01 12 A. I'm circling the references cited. And you  
09:01 13 can go ahead. Go ahead.

09:01 14 MR. SCHLESINGER: Yeah. If we can just  
09:01 15 zoom in right above the figure so we can see that.

09:01 16 There we go.

09:01 17 BY MR. SCHLESINGER:

09:01 18 Q. And do you see Mr. Frink's patents listed in  
09:02 19 those references cited?

09:02 20 A. No.

09:02 21 Q. What does that mean?

09:02 22 A. That means the examiner wasn't aware of this  
09:02 23 patent when they were considering whether or not the  
09:02 24 '909 patent should get a patent.

09:02 25 Q. What about the fact that the -- Mr. Frink's

09:02 1 patent was at the Patent Office at the time?

09:02 2 Was the examiner aware of it?

09:02 3 A. No.

09:02 4 Q. And again, how do you know that?

09:02 5 A. Because if the examiner had considered Frink,

09:02 6 he or she would have listed it here.

09:02 7 MR. SCHLESINGER: And let's switch back

09:02 8 to the slides and let's...

9 BY MR. SCHLESINGER:

09:02 10 Q. Can you describe what Frink discloses?

09:02 11 A. Sure. Frink is all about the idea that you

09:02 12 have an unmanned aircraft, in other words, some kind of

09:02 13 device that's flying in the air. You can see it here

09:02 14 kind of pictured in this figure.

09:03 15 And the idea is you have, for instance, in the

09:03 16 water, perhaps, a boat and you're trying to be able to

09:03 17 approach its position to do things like circle it or

09:03 18 fly alongside it. And same thing for a ground

09:03 19 transmitter to be able to fly to it.

09:03 20 The idea was, for instance, you might be

09:03 21 measuring watershed, like stream levels, and you want

09:03 22 to be able to send an autonomous aircraft out to circle

09:03 23 it and get the data or you might even be doing

09:03 24 fish-spotting, and you want to be able to go out and

09:03 25 find the fish for the fishermen.

09:03 1 Q. You mentioned flying patterns. What kind of  
09:03 2 patterns does Frink disclose?

09:03 3 A. There's two examples he gives that I've  
09:03 4 prepared slides on. If you go to the next slide, I  
09:03 5 think I have the first example.

09:03 6 This, he's kind of -- you can see in the  
09:03 7 description here I've highlighted in yellow, the idea  
09:03 8 is -- one thing that he talks about is matching the  
09:03 9 marine vessel's speed. So that's velocity matching,  
09:03 10 same relative velocity, so you can follow the boat as  
09:04 11 it's going through the waves.

09:04 12 Q. What do you mean by "follow the boat"?

09:04 13 A. I mean being able to match its velocity so you  
09:04 14 can go right alongside it.

09:04 15 Q. Does Frink disclose any other patents?

09:04 16 A. He does. If you go to the next slide, please.  
09:04 17 And there's a little quote here for you. It  
09:04 18 can be programmed to fly a pattern, it says here. And  
09:04 19 in particular, it says an oval pattern.

09:04 20 So now you have a boat moving through the  
09:04 21 water, and Frink describes and discloses that you could  
09:04 22 have this aircraft circling the boat in an oval shape  
09:04 23 as it's going through the water, which means you have  
09:04 24 to both match its speed but also have this interesting  
09:04 25 relative velocity to go faster and slower than it so

09:04 1 you can move along with it and go in an oval pattern  
09:04 2 around it at the same time.

09:04 3 Q. So Frink discloses both following another  
09:04 4 object, so an aircraft following a boat, for example,  
09:04 5 or an aircraft circling the boat?

09:04 6 MR. RICH: Objection, leading.

09:04 7 THE COURT: Overruled.

09:05 8 A. That's correct.

09:05 9 BY MR. SCHLESINGER:

09:05 10 Q. Let's turn to Claim 1.

09:05 11 What is your opinion with respect to whether  
09:05 12 Frink anticipates or renders obvious Claim 1 of the  
09:05 13 '909 patent?

09:05 14 A. My opinion is that Frink anticipates and  
09:05 15 renders obvious Claim 1.

09:05 16 Q. Why is that?

09:05 17 A. Well, for understanding invalidity, I go  
09:05 18 through every line of Claim 1 and consider does Frink,  
09:05 19 does this invention that was a couple years earlier,  
09:05 20 disclose every line, every word?

09:05 21 And as I did this in Claim 1, I went through  
09:05 22 it one step at a time. I found that every part of  
09:05 23 Claim 1 is indeed disclosed by Frink.

09:05 24 Q. Why don't we start with the first element?

09:05 25 A. Sure.

09:05 1 Q. Where does Frink disclose the first  
09:05 2 limitation?

09:05 3 A. So the very beginning of Claim 1 is a system  
09:05 4 for controlling the flight of an aircraft. That line  
09:05 5 that we call the preamble.

09:05 6 And even in the very beginning of the Frink  
09:06 7 patent, it already says this invention is about this  
09:06 8 aerial vehicle, that's an aircraft, flying, and it's  
09:06 9 about controlling it.

09:06 10 Actually, I'm underlining the wrong thing.

09:06 11 It's about flying this aircraft and being able  
09:06 12 to fly it in a specific pattern. So you got to control  
09:06 13 it to be able to fly it in a pattern like that.

09:06 14 Q. And where in Frink is that disclosed?

09:06 15 A. That's disclosed in Frink here in the summary  
09:06 16 of the invention right in the description.

09:06 17 Q. And is that Column 2, Lines 15 to 17?

09:06 18 A. Yes. That's shown right here.

09:06 19 Q. And what does -- what about the next element,  
09:06 20 the sensor element?

09:06 21 A. You'll remember this element from yesterday.  
09:06 22 This was the idea that the aircraft needs to be able to  
09:06 23 have a sense of its own position.

09:06 24 And in the claim language, they said two  
09:06 25 things about that. The aircraft has to have the

09:06 1 ability to sense its position, has to have a sensor  
09:07 2 system for that, and inertial motion.

09:07 3 Remember, we talked about the idea that it's  
09:07 4 not just position but also how it's moving.

09:07 5 And on the left side, I'm showing Frink at  
09:07 6 Column 4 talking about the idea that the vehicle --  
09:07 7 that's the aerial vehicle, that's the aircraft -- can  
09:07 8 have the following.

09:07 9 It says right here a "global positioning  
09:07 10 receiver," and it even names a specific one, and of  
09:07 11 course, that's going to give you position.

09:07 12 And then in that same paragraph, at the bottom  
09:07 13 here, it has this phrase: It can be backed up with an  
09:07 14 inertial guidance system.

09:07 15 And it actually lists out accelerometers and  
09:07 16 gyroscopes, which are part of the systems I was telling  
09:07 17 you about yesterday. So that is actually the inertial  
09:07 18 movement of the aircraft.

09:07 19 Q. And when you say systems telling you about  
09:07 20 yesterday, you're talking about the inertial movement  
09:07 21 sensors?

09:07 22 A. Yes.

09:07 23 Q. What about the rest of the sensor limitation  
09:07 24 in the '909 patent?

09:07 25 A. The second half of this paragraph is saying

09:07 1 "the sensor system adapted to communicate." So it's  
09:08 2 not good enough for the aircraft to collect the data  
09:08 3 with the sensor system. It needs to be in a position  
09:08 4 of being able to use that information. So it has to  
09:08 5 communicate it to the control system somehow.

09:08 6 And in Frink here, in Column 7, Line 44, Frink  
09:08 7 says: The flight computer is in communication with the  
09:08 8 flight dynamic sensors. The flight dynamic sensors are  
09:08 9 the sensors that measure its position in motion.

09:08 10 So now we know that Frink is disclosing this  
09:08 11 second half here as well.

09:08 12 Q. So does Frink disclose the entire sensor  
09:08 13 system limitation in Claim 1 of the '909 patent?

09:08 14 A. Yes. Frink does so.

09:08 15 Q. What about the next limitation?

09:08 16 A. The next one, you'll remember yesterday too,  
09:08 17 it was about the idea that the aircraft has to receive  
09:08 18 the position of the boat or the reference vehicle and  
09:09 19 the movement of the boat or the reference vehicle.

09:09 20 So we can look in Frink to see, does Frink  
09:09 21 disclose this idea that the boat's information, the  
09:09 22 boat's position, the boat's motion, is being received  
09:09 23 by the aircraft?

09:09 24 And here, on the left, I'm showing Column 4 of  
09:09 25 Frink, again, Line 63, all the way through to Column 5,

09:09 1 a few things about that.

09:09 2 First of all, we're going to just start with  
09:09 3 the receiver. Does the aircraft even have the ability  
09:09 4 to receive things?

09:09 5 And here, we're seeing wireless communication  
09:09 6 system for communicating with surface-based data  
09:09 7 collectors. Surface-based data collectors is, for  
09:09 8 example, the boat or the antenna on the ground.

09:09 9 And then it says this is useful for retrieving  
09:09 10 data. So we know that we've fulfilled this first part  
09:09 11 here.

09:09 12 Q. What about the rest of the receiver limitation  
09:09 13 in the '909, Claim 1?

09:09 14 A. Let's go to the next slide, please.

09:09 15 So the rest of it, now that we know we have a  
09:09 16 receiver, that receiver has to receive that position  
09:10 17 information and movement information that we talked  
09:10 18 about.

09:10 19 And in Column 8 here in Frink, there's this  
09:10 20 paragraph. And what this is saying is that the flight  
09:10 21 navigation computer on the aircraft uses the surface  
09:10 22 object's navigation data. And it actually spells it  
09:10 23 out: Position, heading and speed.

09:10 24 Position, of course, that is right away  
09:10 25 connected to position here. And heading and speed,

09:10 1 that's movement information. So that's connected right  
09:10 2 over here to movement.

09:10 3 So both of those are being called out and  
09:10 4 disclosed by Frink.

09:10 5 Q. And you mentioned "this paragraph" of  
09:10 6 Column 8. Is that Lines 31 to 44?

09:10 7 A. Yes.

09:10 8 Q. What about the next limitation, "the commanded  
09:10 9 data"? Does Frink disclose that?

09:10 10 A. Yes.

09:10 11 So this limitation, you'll remember, was about  
09:10 12 the idea that there has to be something representing  
09:10 13 selected velocity of the aircraft relative to the  
09:11 14 reference vehicle.

09:11 15 So if it's a boat, some commanded data is  
09:11 16 saying what's the relative velocity we want to have  
09:11 17 between these two?

09:11 18 And in Frink, here in Column 9, Lines 1 to 8,  
09:11 19 Frink says that the aircraft can be programmed to fly  
09:11 20 in the pattern. And he even uses the word "commanded"  
09:11 21 here. It can be commanded, for example, to fly  
09:11 22 directly over or it can be programmed to fly in an oval  
09:11 23 pattern.

09:11 24 Both of those cases, if you're going to tell  
09:11 25 the aircraft, for example, to fly in an oval pattern,

09:11 1 you need to command its relative velocity, you know,  
09:11 2 saying it should go a little bit faster on this side, a  
09:11 3 little bit slower on this side and keep going round and  
09:11 4 round the boat.

09:11 5 Q. And yesterday, you mentioned there were  
09:11 6 multiple ways for -- I believe it was referred to as  
09:11 7 station-keeping.

09:11 8 A. Yes.

09:11 9 Q. Which of those ways does Frink disclose?

09:11 10 A. He actually says very specifically matching  
09:11 11 the marine vessel's speed here when he talks about  
09:11 12 commanding it to fly directly over. So that's relative  
09:12 13 velocity too, because you're saying, I want you to  
09:12 14 match your velocities.

09:12 15 Q. And just for the -- remind us what the other  
09:12 16 way of doing?

09:12 17 A. The other way of doing it was the wooden  
09:12 18 yardstick, right? You can just take your position and  
09:12 19 lock your position together.

09:12 20 Q. And Frink discloses the relative velocity?

09:12 21 A. Correct.

09:12 22 Q. What about the control system limitation?  
09:12 23 Does Frink disclose that?

09:12 24 A. Yes.

09:12 25 Q. How do you know that?

09:12 1 A. Well, we can kind of go through it a step at a  
09:12 2 time also. And this is a longer one, but that's it --  
09:12 3 it is what it is, I guess.

09:12 4 Here we have -- first of all, we have to have  
09:12 5 a control system on the aircraft, and Frink says that  
09:12 6 the aircraft can have a flight control computer. So we  
09:12 7 know we have a control system.

09:12 8 Q. And where does Frink say that?

09:12 9 A. In Column 5, Lines 15 to 24.

09:12 10 Q. And what about the next part of the control  
09:13 11 system limitation?

09:13 12 MR. RICH: Your Honor, may we approach?

09:13 13 THE COURT: Sure.

09:13 14 (Bench conference.)

09:13 15 MR. RICH: Your Honor, we don't believe  
09:13 16 this is in his report. He's about to tie -- he's going  
09:13 17 to try to tie matching into calculating the velocity.  
09:13 18 But in his report all he ties is the pattern, that it's  
09:13 19 programmed to fly in a pattern.

09:13 20 MR. SCHLESINGER: DJI's objections to  
09:13 21 this were due three days ago. And actually, counsel  
09:13 22 surprised me with an objection yesterday asking if  
09:13 23 there was anything else --

24 (Simultaneous speakers.)

25 THE REPORTER: I can't hear you when your

1 papers are over the microphone.

09:13 2 THE COURT: I'm not worried about this  
09:13 3 slide. What I need to know is whether or not something  
09:13 4 is in -- just show me where -- hold on a second.

09:13 5 Show me where what you're about to have  
09:14 6 the witness say is in his report.

09:14 7 MR. RICH: So you're addressing  
09:14 8 calculating limitation, and all he does is say it flies  
09:14 9 in a pattern to calculate.

09:14 10 It never says matching to calculate.

09:14 11 MR. SCHLESINGER: We're not going to --  
09:14 12 that's not the intent.

09:14 13 MR. RICH: As long as he doesn't say --  
09:14 14 (Simultaneous speakers.)

09:14 15 MR. RICH: I mean, if he says it, I have  
09:14 16 to object to that.

09:14 17 THE COURT: If he says it, object, and  
09:14 18 I'll strike it.

19 MR. RICH: Thanks, Your Honor.

09:14 20 THE COURT: And again, let me make clear.  
09:14 21 My -- I'm not -- my concern is not with what's in this  
09:14 22 slide. It's with -- if you have something that's  
09:14 23 supported in the report, I'll let him talk about it.

09:14 24 MR. RICH: Thank you, Your Honor.

09:14 25 (Bench conference concludes.)

1 BY MR. SCHLESINGER:

09:15 2 Q. Now, for the calculating limitation, is this  
09:15 3 done by the oval pattern disclosed in Frink?

09:15 4 A. Yes.

09:15 5 Q. Can you explain that, please?

09:15 6 A. Yes. The control system on the aircraft has  
09:15 7 to figure out how to fly in the real world kind of with  
09:15 8 all the wind and all the vagaries, what's actually  
09:15 9 happening, to be able to maintain that oval racetrack  
09:15 10 pattern as it's going around the boat as it's moving.  
09:15 11 So it's going to be calculating how to do that.

09:15 12 Q. And what about the next part of the control  
09:15 13 system limitation?

09:15 14 A. The next part -- can we go back one? I'm  
09:15 15 sorry. Thank you.

09:15 16 The next part is the idea that you need to be  
09:15 17 using the sensed data and the reference data. Frink  
09:15 18 says that we're using the surface object's navigation  
09:15 19 data and heading information. And we know the  
09:16 20 navigation computer also has its own position  
09:16 21 information.

09:16 22 Q. And is that at Column 8, Lines 36 to 42?

09:16 23 A. Yes.

09:16 24 Q. What about the rest of the control systems  
09:16 25 limitation?

09:16 1 A. The rest is kind of saying: How are you doing  
09:16 2 it?

09:16 3 And so it says that, in the claim, you need to  
09:16 4 control the flight-control devices. That means the  
09:16 5 flaps on the airplane, the ailerons, the elevator, the  
09:16 6 rudder, whatever makes the airplane be able to change  
09:16 7 direction and speed.

09:16 8 And in Frink, he says right here in Column 5,  
09:16 9 15 to 24, that the system is going to actuate the  
09:16 10 flight control surfaces which is matching that and  
09:16 11 disclosing that.

09:16 12 Q. And what about the rest of -- the next part of  
09:16 13 the control systems limitation?

09:16 14 A. Finally, the limitation's saying, what are you  
09:16 15 doing? And it's saying you're maintaining and  
09:16 16 achieving a selected velocity relative to the reference  
09:17 17 vehicle.

09:17 18 And of course, if you have an aircraft that's  
09:17 19 going around a boat, it's maintaining that relative  
09:17 20 velocity around that reference vehicle.

09:17 21 Q. And where is that shown in Frink?

09:17 22 A. It's shown both in the text that I'm showing  
09:17 23 here from Column 9:1-8 and in the figure that we're  
09:17 24 animating.

09:17 25 Q. And what about the last limitation?

09:17 1 A. Let's go ahead and go to the next slide.

09:17 2 Thank you.

09:17 3 The last limitation you'll remember is saying  
09:17 4 that the commanded data is programmed into the control  
09:17 5 system prior to flight.

09:17 6 And I'm showing here some writing from Frink  
09:17 7 in Column 3:18-30, and he actually says it both ways.

09:17 8 He can say that it can be preprogrammed, which means  
09:17 9 prior to flight in this case, and he can say,

09:18 10 alternatively here, it can be provided while the  
09:18 11 unmanned aerial vehicle is in flight. So he gives both  
09:18 12 indications.

09:18 13 And then below, I've just pointed out that he  
09:18 14 talks about the idea that you can program these  
09:18 15 commands. So you're talking about the things that  
09:18 16 we're programming or preprogramming.

09:18 17 Q. So what is your opinion with respect to  
09:18 18 whether Frink anticipates or renders obvious Claim 1 of  
09:18 19 the '909 patent?

09:18 20 A. I believe Frink anticipates and renders  
09:18 21 obvious Claim 1.

09:18 22 Q. So Frink shows that the '909 patent did not  
09:18 23 invent what's claimed in Claim 1 of the '909 patent?

09:18 24 MR. RICH: Objection, leading.

09:18 25 THE COURT: Overruled.

09:18 1 A. That is my opinion. I believe Frink shows  
09:18 2 that the Claim 1 -- everything in Claim 1 was already  
09:19 3 invented.

09:19 4 BY MR. SCHLESINGER:

09:19 5 Q. Let's turn to the next asserted claim,  
09:19 6 Claim 7. I believe yesterday we heard that this is  
09:19 7 very similar to Claim 1; is that right?

09:19 8 A. Yes.

09:19 9 Q. What is your opinion with respect to whether  
09:19 10 Frink anticipates or renders obvious Claim 7?

09:19 11 A. I believe Frink also anticipates and renders  
09:19 12 obvious Claim 7.

09:19 13 Q. And maybe we can move a little faster through  
09:19 14 this one since it's similar. But what's the basis of  
09:19 15 your opinion?

09:19 16 A. It'll be absolutely faster, yes.

09:19 17 Again, I went through the whole claim line by  
09:19 18 line because every word matters, and I'll point out to  
09:19 19 you where it differs.

09:19 20 So this one, there's no difference. It's a  
09:19 21 system for controlling an aircraft just like in  
09:19 22 Claim 1. And the same evidence applies Column 2,  
09:19 23 Lines 15 to 17.

09:19 24 Q. What about the sensor limitation?

09:19 25 A. The difference in sensor limitation I've

09:19 1 underlined here in red. This claim is just like the  
09:19 2 other claim except it says position of the aircraft  
09:19 3 relative to the earth.

09:20 4 And so if we look at Frink here on the left,  
09:20 5 he actually disclosed a global positioning system. And  
09:20 6 the way GPS like on your phone works is actually gives  
09:20 7 you your position relative to the earth. And yes, if  
09:20 8 you were on the moon or Mars, it would not work at all.  
09:20 9 It's just relative to the earth.

09:20 10 Q. And is that at Column 4, Lines 63 through  
09:20 11 Column 5, Line 8 in Frink?

09:20 12 A. Yes.

09:20 13 Q. So what's your opinion with respect to whether  
09:20 14 Frink discloses the sensor limitation?

09:20 15 A. I believe Frink does disclose this limitation.

09:20 16 Q. And what about the next element? The receiver  
09:20 17 limitation?

09:20 18 A. This one, you'll recall, is about the aircraft  
09:20 19 receiving position and movement data from the ship,  
09:20 20 from the reference vehicle. And the difference is,  
09:20 21 again, just the phrase "relative to earth." So this  
09:20 22 claim's just saying it has to be compared to the earth.

09:20 23 But, again, Frink discloses not only aircraft  
09:21 24 can be using GPS, but the marine vessel can be using  
09:21 25 GPS. So that means that the boat has GPS. And we know

09:21 1 that the boat is sending its heading and speed to the  
09:21 2 aircraft, and that's relative to earth because you're  
09:21 3 measuring your speed, for instance, on the water.

09:21 4 Q. And so where in Frink does it disclose the  
09:21 5 receiver limitation of Claim 7 of the '909 patent?

09:21 6 A. In Column 8, Line 31 to 44 and Column 8,  
09:21 7 Line 53 to 61 and Column 9, Line 25 to 28.

09:21 8 Q. And what about the control system limitation?  
09:21 9 Does Frink disclose that?

09:21 10 A. If we go through it step by step again, the  
09:21 11 beginning of it, control system connected to the  
09:21 12 sensors and receivers is just the same as Claim 1. So  
09:21 13 I'm showing the same evidence on the left. It's  
09:21 14 Column 5, Lines 15 to 24. It's the same.

09:21 15 Q. And what about the calculating? Does Frink  
09:22 16 similarly disclose calculating based on an oval  
09:22 17 pattern?

09:22 18 A. Yes. It's -- again, I'm showing the same  
09:22 19 evidence because it's word for word the same for the  
09:22 20 section that I have highlighted. So it's Lines --  
09:22 21 Column 9, Lines 1 to 8 and Column 8, Lines 36 to 42.

09:22 22 Q. And what about the last limitation with the  
09:22 23 "or"? Does Frink also disclose this based on the oval  
09:22 24 pattern?

09:22 25 A. Yes. He does. If we look at the words here,

09:22 1 you'll see there's one difference twice over, which is  
09:22 2 it says: Maintains a selected position relative to the  
09:22 3 reference vehicle "or" a selected velocity relative to  
09:22 4 the reference vehicle.

09:22 5 So Claim 7's a little bit different here, but  
09:22 6 of course, we already heard that Frink, in Column 9,  
09:22 7 Lines 1 to 8, is saying you can be commanded to fly an  
09:22 8 oval pattern.

09:22 9 And to fly that oval pattern, you're going to  
09:22 10 have to be able to both have a velocity of increasing  
09:23 11 and decreasing relative to the boat, and you are to be  
09:23 12 orbiting the position of the boat. So you need both.

09:23 13 Q. And what about the last limitation in Claim 7?  
09:23 14 Does Frink disclose that?

09:23 15 A. This is, again, similar to the language you  
09:23 16 saw before because at the end it says "prior to  
09:23 17 flight." And it says: The selected position and  
09:23 18 velocity of the aircraft is selected and input prior to  
09:23 19 flight.

09:23 20 And just like before up here in this, what I'm  
09:23 21 circling right now in Column 3, Line 18 to 30, Frink  
09:23 22 says it both ways. He says it up at the top half it  
09:23 23 can be preprogrammed, and then he says in the bottom  
09:23 24 half it can even be done while the aircraft is in  
09:23 25 flight.

09:23 1 Q. And what is your opinion with respect to  
09:23 2 whether Frink anticipates or renders obvious Claim 7 of  
09:23 3 the '909 patent?

09:23 4 A. I believe Frink anticipates and renders  
09:23 5 obvious Claim 7 of the '909 patent.

09:23 6 Q. Now, let's move on to the last two claims that  
09:24 7 are asserted in this case, Claims 10 and Claim 11.

09:24 8 Are these dependent claims?

09:24 9 A. Yes. They are.

09:24 10 Q. What does that mean?

09:24 11 A. That means they add an additional element to  
09:24 12 an existing claim that we've already talked about.

09:24 13 They just make it even longer.

09:24 14 Q. Let's look at that additional element, though.

09:24 15 Well, first off, since it's referring to  
09:24 16 Claim 7 here, do you see that?

09:24 17 A. I do.

09:24 18 Q. And does your same analysis for Claim 7 apply  
09:24 19 to Claim 10?

09:24 20 A. Yes. So all the -- Claim 10 builds on  
09:24 21 Claim 7. So everything that I decided for Claim 7 is  
09:24 22 already what I believe for Claim 10, except we have a  
09:24 23 new additional element that we have to also consider.

09:24 24 Q. And Claim 11 also refers to the system  
09:24 25 according to Claim 7.

09:24 1                  Does your analysis for Claim 7 also apply to  
09:24 2 Claim 11?

09:24 3                  A.     Yes.

09:24 4                  Q.     Let's start with Claim 10 and let's look at  
09:24 5 that additional limitation.

09:24 6                  Does Frink disclose the additional limitation  
09:25 7 in Claim 10?

09:25 8                  A.     Yes.

09:25 9                  Q.     Where?

09:25 10                A.     So additional bit in Claim 10 -- and you saw  
09:25 11 this before yesterday -- is it's saying that  
09:25 12 information about the position movement of the boat,  
09:25 13 for example, it's coming from the boat. The reference  
09:25 14 vehicle is sending it itself.

09:25 15                And in Frink, I've highlighted the section.

09:25 16 It says that the flight navigation uses the unmanned  
09:25 17 aerial vehicle's onboard receiver to receive the  
09:25 18 navigation data from... And that's important, from the  
09:25 19 moveable surface object.

09:25 20                So that's disclosing that it's actually coming  
09:25 21 from the boat.

09:25 22                Q.     And where is that in Frink?

09:25 23                A.     It's in Column 8, Lines 31 to 44.

09:25 24                Q.     So what is your opinion on whether Frink  
09:25 25 anticipates or renders obvious Claim 10 of the '909

09:25 1 patent?

09:25 2 A. I believe that Frink anticipates and renders  
09:25 3 obvious Claim 10 of the '909 patent.

09:25 4 Q. Let's move on to Claim 11.

09:26 5 A. Sure.

09:26 6 Q. Does Frink disclose the additional  
09:26 7 requirements in Claim 11?

09:26 8 A. So when you look at Claim 11, the additional  
09:26 9 requirement is how we're determining the position of  
09:26 10 the aircraft. We're using GPS just like your phone.

09:26 11 And if we look back at Frink, the same way I  
09:26 12 talked about it before, Frink very precisely says using  
09:26 13 GPS such as the Axiom navigation's Swift A1, which is  
09:26 14 GPS. And that's Column 4, Line 63 to Column 5, Line 8.

09:26 15 Q. What is your opinion with respect to whether  
09:26 16 Frink anticipates or renders obvious Claim 11 of the  
09:26 17 '909 patent?

09:26 18 A. I believe he does anticipate and render  
09:26 19 obvious Claim 11 also.

09:26 20 Q. So did Textron invent having an aircraft  
09:26 21 follow a reference vehicle?

09:26 22 A. No.

09:26 23 Q. And to clarify, did the United States Patent  
09:26 24 Office have the benefit of evaluating Mr. Frink's  
09:26 25 patent when it was considering whether to issue or

09:26 1 grant the '909 patent?

09:27 2 A. No.

09:27 3 Q. Let's move on to the '752 patent.

09:27 4 A. Sure.

09:27 5 Q. Do you have an opinion on who would a person  
09:27 6 of ordinary skill in the art be with respect to the  
09:27 7 '752 patent?

09:27 8 A. I do. And that's up on the slide on  
09:27 9 everybody's screen.

09:27 10 Q. And what is that opinion?

09:27 11 A. It's that you have a bachelor's degree or  
09:27 12 better in engineering, for example, or robotics so you  
09:27 13 understand flight controls, and that you have some  
09:27 14 experience with those systems. And, of course, just  
09:27 15 like I said before, nothing beats real-world education  
09:27 16 in the real world -- I'm sorry -- nothing beats  
09:27 17 real-world experience.

09:27 18 And so if you have significant experience in  
09:27 19 the real world, that always substitutes for schooling.

09:27 20 Q. And in the '909 -- I'm sorry -- in the '752  
09:27 21 patent, which claim is asserted?

09:27 22 A. Only one claim, Claim 13.

09:27 23 Q. Does the '752 patent have other claims?

09:27 24 A. Yes. It's got 20 claims altogether, but the  
09:27 25 only claim being asserted in this case is Claim 13.

09:28 1 Q. So are you offering opinion on whether any of  
09:28 2 those other asserted claims are invalid?

09:28 3 A. No.

09:28 4 Q. So what does it mean if the jury agrees with  
09:28 5 you that Claim 13 of the '752 patent is invalid?

09:28 6 Is the entire patent invalid?

09:28 7 A. No.

09:28 8 Q. If you could, please turn to DX-396 in your  
09:28 9 binder.

09:28 10 A. I'm there.

09:28 11 Q. What is this?

09:28 12 A. This is an article, "Design and Pilot  
09:28 13 Evaluation of the RAH-66 Comanche Selectable Control  
09:28 14 Modes."

09:28 15 Q. And who's the first author of that article?

09:28 16 A. Mr. Gold.

09:28 17 Q. And how does this article relate to your  
09:28 18 analysis of whether the '752 -- Claim 13 of the '752  
09:28 19 patent is valid?

09:28 20 A. I studied this article to understand whether  
09:29 21 somebody invented the things in Claim 13 before  
09:29 22 Claim 13 was written.

09:29 23 Q. And when was -- can we refer to this article  
09:29 24 as the Gold article?

09:29 25 A. Sure.

09:29 1 Q. Mr. Gold's article?

09:29 2 When was Mr. Gold's article published?

09:29 3 A. It was published in, I believe, 1993.

09:29 4 MR. SCHLESINGER: Your Honor, DJI moves

09:29 5 to admit Defendants' Exhibit 396.

09:29 6 MR. RICH: No objection.

09:29 7 THE COURT: It'll be admitted.

09:29 8 MR. SCHLESINGER: Actually, we can go

09:29 9 back to the slides. Thank you.

09:29 10 BY MR. SCHLESINGER:

09:29 11 Q. You mentioned this was Mr. Gold's article.

09:29 12 Who else authored this article?

09:29 13 A. James Dryfoos.

09:29 14 Q. And who did Mr. Dryfoos work for?

09:29 15 A. Boeing Helicopter Division.

09:29 16 Q. What kind of aircraft -- you've mentioned

09:29 17 helicopters. What type of helicopters does Boeing

09:29 18 make?

09:29 19 A. I hope I don't get this wrong, but I think

09:29 20 they make the Apache helicopter. Pretty sure about

09:30 21 that.

09:30 22 Q. And what type of helicopters is this article

09:30 23 about?

09:30 24 A. It's about military attack helicopters, and

09:30 25 it's about the controls in those military helicopters.

09:30 1 They're two-seaters, where the pilot's sitting one  
09:30 2 behind the other. And they have all kinds of weaponry  
09:30 3 and defensive material onboard, and they have to be  
09:30 4 able to do battle no matter what the conditions are.

09:30 5 Q. Did the Patent Office have Mr. Gold's article  
09:30 6 before them when they considered whether to grant the  
09:30 7 '752 patent?

09:30 8 A. No.

09:30 9 Q. And you mentioned Gold was published in 1993?

09:30 10 A. Yes.

09:30 11 MR. SCHLESINGER: Could we please pull up  
09:30 12 the '752 patent?

09:30 13 And let's look in and get when it was  
09:30 14 filed.

09:30 15 BY MR. SCHLESINGER:

09:30 16 Q. When was the '752 patent filed?

09:30 17 A. It's right here, July 15, 2011.

09:31 18 Q. It's quite a bit of time after 1993, right?

09:31 19 A. Nearly 18 years after the Gold article was  
09:31 20 published.

09:31 21 Q. And how do you know that the Patent Office  
09:31 22 didn't consider Gold when it decided whether to issue  
09:31 23 the '752 patent?

09:31 24 A. Similar to what we explained on the last  
09:31 25 patent, there's this whole section called "references

09:31 1 cited" that I'm circling, and that lists out everything  
09:31 2 that the Patent Office had considered, and it says  
09:31 3 continued. So this is partial.

09:31 4 Q. Okay. And is that the continued part now  
09:31 5 shown on the screen on the second page of the '752  
09:31 6 patent?

09:31 7 A. Yes.

09:31 8 Q. And is Gold listed on either page?

09:31 9 A. Ask that again?

09:31 10 Q. Is Gold listed in either of those pages?

09:31 11 A. No.

09:31 12 Q. And so that means the Patent Office didn't  
09:31 13 look at Gold and see what it disclosed with the '752  
09:31 14 patent claims?

09:31 15 A. Correct. They didn't look at Gold.

09:31 16 MR. SCHLESINGER: We can go back to the  
09:32 17 slides, please.

09:32 18 BY MR. SCHLESINGER:

09:32 19 Q. What is Gold about?

09:32 20 A. Well, Boeing was building a new  
09:32 21 next-generation military helicopter a lot like the  
09:32 22 Apache. It was called the Comanche. It's hardened.  
09:32 23 So if you shoot at it from below, it's armored down  
09:32 24 here so that the bullets can't get through and hurt the  
09:32 25 helicopter or the pilots in the helicopter. And they

09:32 1 really wanted this to be stable and safe in really  
09:32 2 dangerous situations.

09:32 3 So the whole patent is about the question of:  
09:32 4 If we have some autopilot modes on this helicopter and  
09:32 5 we're flying in dangerous situations, what should  
09:32 6 happen? How should the pilot be able to let go of the  
09:32 7 controls and have the helicopter turn on automatically?

09:32 8 And so just like we talked about yesterday,  
09:32 9 it's all about this question of: How is it that you  
09:32 10 get your autopilot to take over and make the helicopter  
09:32 11 safe when you let go of the controls? And then, of  
09:32 12 course, when you take back over the controls and use  
09:33 13 them, how does the helicopter behave?

09:33 14 Q. And I see part of the section highlighted  
09:33 15 refers to "velocity stabilization," and then there's a  
09:33 16 slash, "hover hold and altitude hold."

09:33 17 Can you explain how we should read when  
09:33 18 something's on the left side of the slash versus the  
09:33 19 right side of the slash?

09:33 20 A. Yeah. This is a little new. We didn't have  
09:33 21 to talk it through yesterday. But in helicopters, when  
09:33 22 we're talking about all the autopilots and the way they  
09:33 23 work, we're always wondering: How does the helicopter  
09:33 24 behave when you use the controls, and then what does  
09:33 25 the autopilot do when you let go of the controls?

09:33 1 You always have to think about those two  
09:33 2 cases, because you're frequently going between you  
09:33 3 controlling the helicopter and letting the helicopter  
09:33 4 control itself, and then you control some more, then  
09:33 5 you let go and let it control itself. You're going  
09:33 6 back and forth all the time.

09:33 7 This is not how I drive my car.

09:33 8 And so the slash, whatever's to the left of  
09:33 9 the slash is how the helicopter behaves when you're  
09:33 10 controlling it. So, for instance, velocity  
09:34 11 stabilization here is a specific thing. It means that  
09:34 12 as I move the stick forward, the more I move the stick  
09:34 13 forward, the faster the helicopter goes but stably. It  
09:34 14 won't upset itself if there's bad wind currents.

09:34 15 And then whatever's after the slash is what  
09:34 16 happens when you let go of the controls. So hover hold  
09:34 17 is saying if I let go of the controls, I want the  
09:34 18 helicopter to hover.

09:34 19 Q. You mentioned "autopilot." Is autopilot  
09:34 20 always on?

09:34 21 A. No. When you are flying a helicopter, you  
09:34 22 know, you turn on the rotors, you lift off. You decide  
09:34 23 if you're going to need autopilot today for your  
09:34 24 flight.

09:34 25 If you're going to need these modes, you have

09:34 1 to hit a switch to enable autopilot. And that's a  
09:34 2 safety feature, because if something malfunctions  
09:34 3 later, you want to be able to turn off autopilot if  
09:34 4 somebody shoots you and damages something.

09:34 5 So you turn on the mode when you lift off and  
09:34 6 you start to fly, then later, half an hour later,  
09:35 7 whenever you want, you can actually use it. So now you  
09:35 8 can actually, for instance, push forward on the stick,  
09:35 9 do the right thing, let go of the stick and the  
09:35 10 autopilot will take over automatically.

09:35 11 Q. Does Gold refer to -- actually, let me strike  
09:35 12 that.

09:35 13 I see on the slide you have -- it's Degraded  
09:35 14 Visual Environment, DVE.

09:35 15 A. Yes.

09:35 16 Q. What is that?

09:35 17 A. I believe that exact same language was  
09:35 18 actually in the '752 patent yesterday too. That means  
09:35 19 when the pilot can't necessarily see everything. It  
09:35 20 could be brownout. It could be you're flying in fog or  
09:35 21 really bad weather.

09:35 22 Q. And we'll move on to the next slide.

09:35 23 Does Gold disclose a control system?

09:35 24 Oops. There we go.

09:35 25 A. Yes. This is a slide where Gold is talking

09:35 1 about the idea that the Comanche helicopter or -- this  
09:35 2 is just a long way of saying Comanche. The Comanche  
09:35 3 helicopter has a control system, and it talks about the  
09:36 4 fact that it has manual control and all these autopilot  
09:36 5 modes that can take over and work with you.

09:36 6 Q. And are those the button you were referring to  
09:36 7 so that you could fly in the autopilot modes?

09:36 8 A. Yes. You turn on all those modes so that  
09:36 9 later during flight, you can automatically go between  
09:36 10 them and manual control as you wish.

09:36 11 Q. And this is -- these cites are a little  
09:36 12 different on this one. I believe what we could just  
09:36 13 refer to -- we're looking at Defendants' Exhibit 396,  
09:36 14 and you see that long list of numbers. Let's just  
09:36 15 refer to the last four as, for example here, 4333.

09:36 16 Is that where these quotes come from, Gold?

09:36 17 A. Yes.

09:36 18 Q. And on the one on the left, it refers to  
09:36 19 "produce superior flight performance and low pilot  
09:36 20 workload."

09:36 21 What is that referring to?

09:36 22 A. If you're able to collaborate with your  
09:36 23 autopilot and decide what it's doing, what you're  
09:36 24 doing, and let go of the controls when you need to, one  
09:36 25 thing that buys you is -- we talked about how flying a

09:37 1 helicopter is a dance. You're using your hands and  
2 feet all the time.

09:37 3 If you can let go sometimes, that lets your  
09:37 4 brain relax. It lets you recover from high-stress  
09:37 5 situations, and so that makes your workload go down,  
09:37 6 where workload is kind of how anxious you are.

09:37 7 Superior flight performance, well, if you want  
09:37 8 to go forward at 25 knots in a very tricky situation  
09:37 9 with low visibility, if you can just tell the  
09:37 10 helicopter, just do that for me, and you just hold the  
09:37 11 stick there, that's a lot easier than trying to fight  
09:37 12 all of the wind currents and turbulence and keep the  
09:37 13 helicopter upright manually. So you're going to fly  
09:37 14 better and with less stress.

09:37 15 Q. And I see a reference to "control law design."

09:37 16 How does that relate to control loops?

09:37 17 A. You're going to be turning on and off  
09:37 18 different control loops so that you're deciding what  
09:37 19 you're controlling when you actually fly the  
09:37 20 helicopter.

09:37 21 MR. SCHLESINGER: And let's turn back to  
09:37 22 Claim 13 of the '752 patent.

23 BY MR. SCHLESINGER:

09:37 24 Q. What is your opinion on whether Gold qualifies  
09:37 25 as prior art to the '752 patent?

09:38 1 A. I believe Gold is prior art.

09:38 2 Q. And what is your opinion on whether Gold

09:38 3 renders Claim 13 of the '752 patent obvious?

09:38 4 A. I believe Gold does render Claim 13 obvious.

09:38 5 Q. There's a lot of limitations here, but let's

09:38 6 walk through them one by one.

09:38 7 A. Sorry.

09:38 8 Q. Let's start with the first one.

09:38 9 What is your opinion with respect to whether

09:38 10 Gold discloses a flight control system for a rotary

09:38 11 aircraft?

09:38 12 A. So that's just the preamble. And as we

09:38 13 already pointed out, Gold says this has a control

09:38 14 system on the Comanche. So I believe that we've

09:38 15 disclosed that already here.

09:38 16 Q. And is that on Page 4333 of Gold?

09:38 17 A. Yes. 4333.

09:38 18 Q. What about the rest of the preamble, the

09:38 19 rotary aircraft having to list -- the listed

09:38 20 controllers? Does Gold disclose that?

09:38 21 A. Yes.

09:38 22 Q. Where?

09:38 23 A. So that limitation, remember, is saying it's a

09:38 24 particular kind of rotary aircraft. It's one that has

09:39 25 these controllers right here.

09:39 1               And Gold actually explains that the Comanche  
09:39 2 cockpit has controllers, and specifically it says it  
09:39 3 has a 4-axis controller. That's a very fancy way of  
09:39 4 saying it has a special device that they were doing  
09:39 5 their experiments with. When you twist that device, it  
09:39 6 goes left and right. When you lift up, it goes up.  
09:39 7 When you push down, it goes down. When you go forward,  
09:39 8 it goes forward; backward, backward; and right, right;  
09:39 9 left, left. So it gives you longitudinal, lateral,  
09:39 10 directional and vertical control.

09:39 11             Q.     And is that on Page 4339 of Gold?

09:39 12             A.     Yes.

09:39 13             Q.     And you mentioned forward, backward and all  
09:39 14 these things.

09:39 15               How does that relate to what's listed in the  
09:40 16 preamble of Claim 1?

09:40 17             A.     Did you say Claim 1?

09:40 18             Q.     I'm sorry. Claim 13. I misspoke.

09:40 19             A.     Those are all the controllers that we need the  
09:40 20 rotary aircraft to have, and so I believe that Gold's  
09:40 21 disclosure meets that.

09:40 22             Q.     For example, which one's the longitudinal  
09:40 23 controller?

09:40 24             A.     The 4-axis controller when you move it forward  
09:40 25 and backward.

09:40 1 Q. How about the lateral controller?

09:40 2 A. The 4-axis controller when you move it  
09:40 3 sideways.

09:40 4 Q. The directional controller?

09:40 5 A. You twist it, and that gives you the  
09:40 6 directional control.

09:40 7 Q. And the vertical controller?

09:40 8 A. It comes up and down. It pulls up and down  
09:40 9 like a knob, and that gives you up and down control  
09:40 10 which is vertical control.

09:40 11 Q. What is your opinion with respect to whether  
09:40 12 Gold discloses the preamble of Claim 13?

09:40 13 A. I believe Gold does disclose the preamble.

09:40 14 Q. Let's move on to the next limitation, "a  
09:40 15 longitudinal loop design having..."

09:40 16 Does Gold disclose this limitation?

09:40 17 A. Yes. I need to explain the new figure we're  
09:40 18 looking at on the left now.

09:41 19 So this longitudinal loop design limitation is  
09:41 20 all about having different modes of control, like we  
09:41 21 talked about yesterday, to control the helicopter's  
09:41 22 attitude, like this, or rate or speed.

09:41 23 Q. And can you explain how that's shown in  
09:41 24 Figure 1 in Gold?

09:41 25 A. Sure. We can step through it one at a time.

09:41 1 So let's just start with the bottom one, pitch  
09:41 2 rate loop. You'll recall pitch rate loop means how  
09:41 3 fast the helicopter does this. And any helicopter with  
09:41 4 an autopilot has to have that pitch rate loop so it can  
09:41 5 control its rate so it doesn't crash.

09:41 6 And if you look at the very top of this  
09:41 7 complicated figure, this figure breaks up into three  
09:41 8 parts, but the top one actually is about what's called  
09:41 9 angular rate which is pitch rate. And it's a model,  
09:41 10 it's a loop, that's figuring out how to control the  
09:42 11 angular rate of change of the helicopter.

09:42 12 Q. Does Gold disclose a pitch rate loop?

09:42 13 A. Yes.

09:42 14 Q. Let's move on to a pitch attitude loop.

09:42 15 A. Sure. So a pitch attitude loop is the  
09:42 16 electronics that's going to figure out how to be able  
09:42 17 to maintain a specific angle as you fly, for example,  
09:42 18 just holding 10 degrees or just holding 20 degrees.

09:42 19 And I've colored that in green here in this  
09:42 20 same schematic. Here you can see attitude right there,  
09:42 21 and it's actually measuring attitude and then using a  
09:42 22 model of attitude to decide how to control for  
09:42 23 attitude.

09:42 24 Of course, it controls attitude by changing  
09:42 25 rates, by using a rate to make sure it can hold that

09:42 1 angle as it flies through the air.

09:42 2 Q. And the green box you colored here in  
09:42 3 Figure 1, that's just below the purple box on the top?

09:42 4 A. Yes.

09:42 5 Q. What about a forward speed hold loop? Does  
09:42 6 Gold disclose that?

09:42 7 A. Yes.

09:42 8 Q. Where?

09:42 9 A. If you go forward one more slide, forward  
09:43 10 speed hold loop, the idea that the autopilot needs to  
09:43 11 be able to -- if you want it to go at 20 miles an hour  
09:43 12 constantly, it needs to be able to hold 20 miles an  
09:43 13 hour.

09:43 14 So you need, again, electronics to do that.

09:43 15 And, of course, the way you do that is the autopilot  
09:43 16 needs to -- if you're controlling the speed, it needs  
09:43 17 to figure out how to maneuver the helicopter to keep  
09:43 18 you at 20 miles an hour constantly.

09:43 19 And so if you look at the bottom here, this is  
09:43 20 called velocity stabilization. And there's a  
09:43 21 groundspeed coming in here because it's measuring the  
09:43 22 speed, groundspeed and airspeed as a matter of fact,  
09:43 23 and it's using a velocity model. And it's actually  
09:43 24 using those to control the forward speed, and that is  
09:43 25 the forward speed hold loop.

09:43 1 Q. And for the record, the blue box you have  
09:43 2 shown here is at the bottom of Figure 1?

09:43 3 A. Correct.

09:43 4 Q. Let's look at the first wherein clause.

09:44 5 Does Gold disclose the forward speed hold loop  
09:44 6 and the wherein clause about engaging the forward speed  
09:44 7 hold loop automatically when the controller's returned  
09:44 8 to a detent position and the aircraft groundspeed is  
09:44 9 outside of the groundspeed threshold?

09:44 10 A. Yes.

09:44 11 Q. How do you know that?

09:44 12 A. Well, I'm going to teach you how to read  
09:44 13 another table now.

09:44 14 So on the left side, we have some text: The  
09:44 15 pitch axis response type is attitude command/velocity  
09:44 16 hold.

09:44 17 We were just talking about these slashes. So  
09:44 18 to remind you, that mode that Gold's disclosing,  
09:44 19 attitude command/velocity hold, that means when I move  
09:44 20 the stick forward, when I move the little controller  
09:44 21 forward, the more I move it forward, the more I'm  
09:44 22 commanding a certain angle. That's attitude command  
09:44 23 because angle is attitude.

09:44 24 When I let go of it, it goes to velocity hold,  
09:45 25 which means it takes the speed I'm moving at when I let

09:45 1 go and it just continues at that speed. So I'm  
09:45 2 commanding changes to the angle. And when I let go,  
09:45 3 the autopilot's automatically controlling the speed so  
09:45 4 I keep going at the same speed.

09:45 5 That's attitude command/velocity hold.

09:45 6 Sometimes you write it AC/VH. That's what it says up  
09:45 7 here in the text.

09:45 8 Now, I want you to see how to read it in the  
09:45 9 figure down below because that gives us even more  
09:45 10 detail.

09:45 11 So first of all, there's a number line here.  
09:45 12 That number line is just showing us how to read the  
09:45 13 rest of the figure in terms of how fast the  
09:45 14 helicopter's going. So if the helicopter was going  
09:45 15 40 knots, which is like 43 miles an hour, we'd be kind  
09:45 16 of here on the number line. If the helicopter was  
09:45 17 going almost nothing, it was like moving at 1 mile an  
09:45 18 hour, it would be here in the figure.

09:45 19 So it's just a number line. The further you  
09:46 20 are to the right, the faster you're going. So let me  
09:46 21 clear those.

09:46 22 So now longitudinal loops are all about what's  
09:46 23 happening this way, and that's the same as pitch. So I  
09:46 24 just made this black so we can just pay attention to  
09:46 25 this direction. That's what matters in this table.

09:46 1           And if we look at the limitation it says: The  
09:46 2 forward speed hold loop, which you know is the same as  
09:46 3 velocity hold here, it needs to automatically engage  
09:46 4 when the longitudinal controller is returned to detent.  
09:46 5 That part means if I let go of the controls, it has to  
09:46 6 automatically start holding forward speed which is  
09:46 7 velocity.

09:46 8           And then it says this has to happen when the  
09:46 9 aircraft's groundspeed is outside a threshold. So when  
09:46 10 you're going faster than something, and that something  
09:46 11 in this picture is this -- really this area here.

09:46 12 Q.       And which area are you pointing to?

09:46 13 A.       It's a darkened area that's from about  
09:46 14 negative 5 knots to 5 knots, and it's labeled "hover  
09:47 15 hold."

09:47 16           So what this is saying is for that claim  
09:47 17 limitation is, if I'm going faster than something, in  
09:47 18 this case 5 knots, when I let go of the stick, what  
09:47 19 happens? It needs to hold the speed, and that's  
09:47 20 exactly what this figure is saying happens in this  
09:47 21 entire region. It's attitude command/velocity hold.

09:47 22 Q.       And so does Gold disclose a forward speed hold  
09:47 23 loop that engages as required by the wherein clause?

09:47 24 A.       Yes.

09:47 25 Q.       And just to be clear, you're looking at

09:47 1 Figure 2 in the text on Page 4335 of Gold?

09:47 2 A. Yes.

09:47 3 Q. Let's move on to the next wherein clause that  
09:47 4 also refers to a pitch attitude loop.

09:47 5 Does Gold disclose: Wherein longitudinal  
09:47 6 maneuverability of the rotary aircraft is controlled by  
09:47 7 either the pitch attitude loop or the pitch rate loop  
09:47 8 when the longitudinal controller is out of the detent  
09:48 9 position?

09:48 10 A. Yes.

09:48 11 Q. How do you know that?

09:48 12 A. So we talked about how, you know, you lifted  
09:48 13 off the airplane, you turned on the autopilot modes,  
09:48 14 you're flying, you've pushed forward, right? And  
09:48 15 you're moving and you let go, and it just holds that  
09:48 16 speed. That was the last limitation.

09:48 17 Now it's -- let's say it's holding its speed.  
09:48 18 What happens when you take the controller and you  
09:48 19 actually move it forward or backward? How does it  
09:48 20 behave? That's what this is all about. So when you  
09:48 21 start exerting control, what happens?

09:48 22 And when you take it and you move it, the  
09:48 23 limitation is saying you need to be controlled by  
09:48 24 either pitch attitude or pitch rate. Pitch attitude  
09:48 25 means when I move that stick, it's controlling the

09:48 1 angle. Pitch rate, when I move that stick forward,  
09:48 2 it's controlling how fast it changes the angle.

09:48 3 And we actually have in the picture on the  
09:48 4 left, the left side of that slash is attitude command  
09:49 5 which is exactly the same as pitch attitude loop. So  
09:49 6 we are controlled by pitch attitude when you move that  
09:49 7 controller.

09:49 8 Q. Is that enough to meet Claim -- the  
09:49 9 requirement of Claim 13?

09:49 10 A. Yes.

09:49 11 Q. What is your opinion with respect to whether  
09:49 12 Gold discloses the entire longitudinal loop design  
09:49 13 claimed in Claim 13?

09:49 14 A. I believe Gold discloses it.

09:49 15 Q. Let's move on to the lateral loop design.  
09:49 16 Does Gold disclose a lateral loop design?

09:49 17 A. Yes.

09:49 18 Q. Where?

09:49 19 A. On the same figure I've made brighter, the  
09:49 20 roll part of the figure so that we can talk through it.

09:49 21 Q. And you're referring to Figure 2?

09:49 22 A. I am. It's the middle part of Figure 2. And  
09:49 23 it's also the text in our excerpt at the top from 4335  
09:49 24 that talks about a roll response type.

09:49 25 Q. Does Gold disclose: Wherein the lateral speed

09:50 1 hold loop automatically engages when the lateral  
09:50 2 controller is returned to a detent position and the  
09:50 3 aircraft groundspeed is outside the first groundspeed  
09:50 4 threshold?

09:50 5 A. Yes.

09:50 6 Q. And actually, just to be clear, on the last  
09:50 7 loop, the longitudinal loop design, what's the  
09:50 8 groundspeed threshold?

09:50 9 A. 5 knots.

09:50 10 Q. And what's the groundspeed threshold here?

09:50 11 A. 5 knots.

09:50 12 Q. Where in Gold does it disclose this limit --  
09:50 13 wherein clause?

09:50 14 A. Here in the roll section Gold says that in  
09:50 15 this whole region, when you're outside of 5 knots,  
09:50 16 you're running the sideways control of the helicopter  
09:50 17 and attitude command groundspeed hold.

09:50 18 That means if you are pushing the control to  
09:50 19 the right, make the helicopter go sideways like this  
09:50 20 perhaps, because you're looking at the treeline or  
09:51 21 something like that. When you let go of the controls,  
09:51 22 that's the hold part, right? Groundspeed hold. So  
09:51 23 it's going to hold the same speed.

09:51 24 It's not a forward speed, right? It's a  
09:51 25 sideways speed or a lateral speed. But it's going to

09:51 1 hold that speed. That's what this here is saying.

09:51 2 Q. What about the next limitation, a roll rate  
09:51 3 loop? And then a wherein clause that: The lateral  
09:51 4 maneuverability of the rotary aircraft is controlled by  
09:51 5 either the lateral speed hold loop or the roll rate  
09:51 6 loop when the lateral controller's out of the detent  
09:51 7 position.

09:51 8 A. For this one, again, out of the detent, this  
09:51 9 is when you actually take the controller and move it.  
09:51 10 So now it's prescribing something that has to happen  
09:51 11 when you move the controller.

09:51 12 And it's saying one of two things has to  
09:51 13 happen, either you control the speed or you control the  
09:51 14 roll rate. And actually in Gold, we even have this  
09:51 15 rate command right here. When you're going faster than  
09:51 16 about 70 knots, if you move that control to the right,  
09:52 17 you're actually controlling the rate. And it does that  
09:52 18 because it makes it fly a little bit like an airplane.

09:52 19 Q. What is your opinion on whether Gold discloses  
09:52 20 Claim 13's lateral loop design?

09:52 21 A. I believe Gold does disclose this whole loop  
09:52 22 design.

09:52 23 Q. All right. That covers the lateral loop  
09:52 24 design. Let's move on to the next loop.

09:52 25 A directional loop design. Does Gold disclose

09:52 1 the claim directional loop design?

09:52 2 A. Yes.

09:52 3 Q. Where?

09:52 4 A. Same figure we were looking at before,

09:52 5 Figure 2. Now we're just -- I've boldfaced the very

09:52 6 bottom which is yaw. Yaw, you'll recall, is just the

09:52 7 angle that you're facing: North, south, east, west.

09:52 8 So it's the same as directional control.

09:52 9 Q. Let's start with the -- actually, I'm sorry.

09:52 10 Where does it disclose a heading hold loop in

09:52 11 Gold?

09:52 12 A. It talks about heading hold both up here in

09:53 13 4334, "heading hold control laws," and it talks about

09:53 14 it in the figure, Figure 2.

09:53 15 Q. Where in Figure 2?

09:53 16 A. So the very bottom of Figure 2 where it says

09:53 17 "yaw," you can see that here it's saying "heading hold"

09:53 18 to the right of the slash and "rate command" to the

09:53 19 left.

09:53 20 So that means -- and if you look in the -- on

09:53 21 the right side in the claim, it says you need a heading

09:53 22 hold loop to happen whenever you go back to detent. It

09:53 23 says re-engage.

09:53 24 So every time you twist the knob, it's going

09:53 25 to move. Every time you let go of the knob, it's going

09:53 1 to engage heading control, which means you're going to  
09:53 2 hold the heading as that. You twist it again, it's  
09:53 3 going to move again. You let go again, it's going to  
09:53 4 re-engage that heading hold in the new direction.

09:53 5 And so since the command type here for yaw is  
09:53 6 rate command/heading hold, that means when you spin  
09:53 7 this, you're changing the angle, the rate of the angle  
09:53 8 change, and you let go of the spinner, it's going to  
09:54 9 hold that heading.

09:54 10 Q. And you mentioned a groundspeed threshold of  
09:54 11 5 knots. What happens if you let go of that controller  
09:54 12 above 5 knots in Gold?

09:54 13 A. The heading hold loops gets re-engaged.

09:54 14 Q. And you mentioned the rate command.

09:54 15 Is that a yaw rate command?

09:54 16 A. Yes.

09:54 17 Q. Does that meet the -- a yaw rate command loop  
09:54 18 claimed in Claim 13?

09:54 19 A. Yes.

09:54 20 Q. So what is your opinion on whether Gold  
09:54 21 discloses the entire directional loop design claimed in  
09:54 22 Claim 13?

09:54 23 A. I believe Gold does disclose this whole loop  
09:54 24 design.

09:54 25 Q. Let's move on to the vertical control loop.

09:54 1                  Does Gold disclose the vertical control loop  
09:54 2 claimed in Claim 13?

09:54 3                  A.     I believe so. Yes.

09:54 4                  Q.     Let's start with the altitude hold loop in the  
09:54 5 wherein clause: The altitude hold loop automatically  
09:54 6 engages when the vertical controller is returned to a  
09:54 7 detent position and the aircraft groundspeed is inside  
09:54 8 the first groundspeed threshold.

09:54 9                  Does Gold disclose this?

09:54 10                A.     Yes.

09:54 11                Q.     Where?

09:55 12                A.     So we can see up in the top box, which is  
09:55 13 4338, that Gold says: This is going to be a vertical  
09:55 14 rate command altitude height hold.

09:55 15                And when the vertical controllers return to a  
09:55 16 detent, that means you're pulling up and you let go.  
09:55 17 So you're -- maybe your helicopter's at 500 feet. You  
09:55 18 pull up, and you start going up 10 feet a minute. And  
09:55 19 after half a minute or so, you let go, and you've  
09:55 20 gotten to 550 feet. You want -- when you let go, you  
09:55 21 want the helicopter to stay at 550 feet of altitude.

09:55 22                And in the writing on the left, it says  
09:55 23 "vertical rate command." So when I pull up and down on  
09:55 24 that knob, I'm commanding the speed at which I go up  
09:55 25 and down.

09:55 1 When I let go of it, it's height hold.

09:55 2 Attitude hold and height hold are the same thing.

09:55 3 Q. You mentioned the vertical speed. Is that the

09:55 4 vertical speed loop claimed in Claim 13?

09:55 5 A. Yes.

09:55 6 Q. And is that shown on Page 4338 of Gold?

09:56 7 A. Yes.

09:56 8 Q. In the earlier description, you were talking

09:56 9 about the attitude hold and how it engages and meets

09:56 10 the wherein clause.

09:56 11 Is that on Pages 4337 through 4338 of Gold?

09:56 12 A. Yes.

09:56 13 Q. And does that occur when the groundspeed is

09:56 14 less than the 5 knots first groundspeed threshold?

09:56 15 A. Yes.

09:56 16 Q. And I also just want to confirm, on the

09:56 17 directional loop, you mentioned the heading hold would

09:56 18 be re-engaged.

09:56 19 Just to confirm, the heading hold would be

09:56 20 re-engaged if the groundspeed is less than 5 knots,

09:56 21 which is the first groundspeed threshold; is that

09:56 22 correct?

09:56 23 A. Yes.

09:56 24 Q. I believe we actually went through all those

09:56 25 loops.

09:56 1 A. We did.

09:56 2 Q. But I think you have a little bit additional  
09:56 3 evidence -- or I'm curious if you have a little  
09:57 4 additional evidence on the vertical speed hold loop.

09:57 5 Is there any diagrams that disclose that?

09:57 6 A. There is an even more complicated-looking  
09:57 7 diagram. Yes.

09:57 8 Q. Where is that?

09:57 9 A. It is on Gold 4337. It's called Figure 5.

09:57 10 Q. It's a little complex, but can you break it  
09:57 11 down for us?

09:57 12 A. Sure.

09:57 13 I'm going to start by showing you the speed  
09:57 14 part of it. How do you maintain the same speed when  
09:57 15 you command it to keep going up, for example, at 5 feet  
09:57 16 per minute?

09:57 17 And that speed part of it, this is the 4-axis  
09:57 18 controller that we're pulling up on. So we're pulling  
09:57 19 up on that in this direction inside the cockpit.

09:57 20 And when we do that, these are actually speed  
09:57 21 commands. That ALT with a dot on top means how fast  
09:57 22 you're going up and down.

09:57 23 And so you're actually measuring how fast  
09:57 24 you're actually going up and down. You're comparing it  
09:57 25 here to how fast you're commanding it to go up and

09:57 1 down, and then you're making adjustments to the actual  
09:58 2 rotors of the helicopter so that if you're asking for 5  
09:58 3 feet a minute, you're going to get 5 feet per minute.

09:58 4 Q. And is this showing a loop, a vertical speed  
09:58 5 hold loop?

09:58 6 A. Yes.

09:58 7 Q. And that's Figure 5?

09:58 8 A. Yes.

09:58 9 Q. Does Figure 5 also show an altitude hold loop?

09:58 10 A. Absolutely.

09:58 11 Q. Can you describe that?

09:58 12 A. Sure.

09:58 13 When you let go of this controller, you don't  
09:58 14 want to go up at 5 feet a minute anymore. You want it  
09:58 15 to just lock in on the altitude it's at and stay there  
09:58 16 so that, for instance, you can survey the ground, look  
09:58 17 for whatever you're looking for.

09:58 18 And so when that happens, you're measuring the  
09:58 19 altitude you're at and the altitude that you've  
09:58 20 commanded, which is basically the altitude when you let  
09:58 21 go of the controller.

09:58 22 You're comparing those two, figuring out the  
09:58 23 error that's in the altitude you're supposed to be at  
09:58 24 and the altitude you're actually at. And then, again,  
09:58 25 you're commanding the helicopter so you can fix it.

09:58 1 So if you're at 800 feet and you're supposed  
09:59 2 to be at 795 feet, it'll bring itself right down to 795  
09:59 3 and stay there. And if there's a thermal blowing it  
09:59 4 out of position, it's going to constantly compensate  
09:59 5 for that and stay at 795.

09:59 6 Q. And that's when you let go of the controls?

09:59 7 A. Yes.

09:59 8 Q. What is your opinion with respect to whether  
09:59 9 Gold renders obvious Claim 13?

09:59 10 A. I believe Gold does render obvious all of  
09:59 11 Claim 13.

09:59 12 Q. Did Mr. Gold invent the control loops claimed  
09:59 13 in Claim 13 prior to the '752 patent?

09:59 14 A. No. These control loops -- helicopter  
09:59 15 autopilots have been around for decades. Control loops  
09:59 16 are not new. Gold and the '752 patent are just talking  
09:59 17 about how to turn them on and off when you let go of  
09:59 18 the controls and push on the controls.

09:59 19 Q. I see. So the controllers predate even Gold?

09:59 20 A. Oh, yes.

09:59 21 Q. Did Gold disclose the specific control loops  
10:00 22 claimed in Claim 13 of the '752 patent before the '752  
10:00 23 patent was filed?

10:00 24 A. Yes.

10:00 25 Q. And is that why Gold renders obvious Claim 13

10:00 1 of the '752 patent?

10:00 2 A. Yes.

10:00 3 Q. And again, you're only opining whether one  
10:00 4 claim in the '752 patent is invalid; is that correct?

10:00 5 A. That's right.

10:00 6 Q. And so if the jury agrees with your opinions  
10:00 7 both on the '752 patent and the '909 patent, that  
10:00 8 doesn't mean the entire patent's invalid?

10:00 9 A. Correct.

10:00 10 Q. And just as a reminder, the United States  
10:00 11 government Patent Office, when they evaluated Claim 13  
10:00 12 of the '752 patent, they never looked at Gold. They  
10:00 13 didn't have Gold before it, did they?

10:00 14 A. Correct.

10:00 15 Q. So let's shift gears. We're on the last  
10:00 16 questions finally.

10:00 17 Let's talk a little bit about the technical  
10:00 18 value and potential alternative designs. Let's start  
10:00 19 with the '909 patent.

10:00 20 Do you have an opinion on whether the -- what  
10:00 21 the '909 patent's technical value is related to DJI  
10:00 22 drones?

10:00 23 A. Yes. I do.

10:01 24 Q. What is that?

10:01 25 A. I believe the '909 patent does not have any

10:01 1 value for these drones.

10:01 2 Q. Why not?

10:01 3 A. Because what the '909 patent teaches isn't  
10:01 4 necessary or useful to the way we fly these drones in  
10:01 5 the real world.

10:01 6 Q. And you're talking about the RIV that was  
10:01 7 described?

10:01 8 A. Yes. The relative inertial velocity mode.

10:01 9 Q. Was following an object new in the '909  
10:01 10 patent?

10:01 11 A. No.

10:01 12 Q. Do you have an opinion with respect to the  
10:01 13 '752 patent, whether that has any technical value to  
10:01 14 the DJI drones?

10:01 15 A. For these drones that DJI builds and people  
10:01 16 buy and use, I don't believe the '752 patent has any  
10:01 17 technical value.

10:01 18 Q. Why not?

10:01 19 A. Because the things that the '752 patent is  
10:01 20 about, while they're very applicable to this kind of  
10:01 21 machine, I just don't think they apply. They have no  
10:02 22 value for this kind of machine where I'm standing  
10:02 23 outside here and controlling it.

10:02 24 Q. And you're differentiating between the  
10:02 25 helicopter that's piloted by a pilot and a drone that's

10:02 1 not?

10:02 2 A. That's my example. Yes.

10:02 3 Q. And kind of like how the DJI drones with

10:02 4 Follow Me aren't about landing on a ship?

10:02 5 A. That's right.

10:02 6 Q. Were you asked to consider if there were any  
10:02 7 alternative designs that were available for the '909  
10:02 8 and '752 patents?

10:02 9 A. I was.

10:02 10 Q. Did you identify any?

10:02 11 A. I did.

10:02 12 Q. Let's start with the '909 patent.

10:02 13 What alternative design did you identify?

10:02 14 A. Well, I thought about this last element,  
10:02 15 "wherein the commanded data is preprogrammed into the  
10:02 16 control system prior to flight of the aircraft,"  
10:02 17 because Textron has the contention that we're doing  
10:02 18 this with the DJI drones -- not we, that DJI is doing  
10:03 19 this with their drones.

10:03 20 And so there's a nice alternative design.

10:03 21 Because when I use Follow Me or ActiveTrack with these  
10:03 22 drones, I take off first, right? I take off, angle it  
10:03 23 toward me so that I can make sure I get a good picture  
10:03 24 of me when I'm walking around in Follow Me mode or when  
10:03 25 it's following my son on his mountain bike in

10:03 1 ActiveTrack mode.

10:03 2 So the change I could make to the interface  
10:03 3 would be at that moment when I say, yeah. I want to  
10:03 4 start Follow Me or I want to start ActiveTrack. It can  
10:03 5 show this box -- I've drawn a really crude-looking box,  
10:03 6 but graphic designers can make it pretty -- inside  
10:03 7 here. Right here. Like a little box here.

10:03 8 And what that box would have on it is, it  
10:03 9 would let me choose if I want to even have commanded  
10:03 10 relative velocity. I could push on that velocity  
10:03 11 button and decide how fast I want the drone to get  
10:03 12 closer or further away from me as I walk.

10:04 13 So if I just added that box, then I'd actually  
10:04 14 have commanded relative velocity and I'd have it on my  
10:04 15 interface, and it wouldn't be prior to flight because  
10:04 16 I'm clearly using it while I'm flying.

10:04 17 Q. And was this alternative something DJI could  
10:04 18 have done at the time it released Follow Me or  
10:04 19 ActiveTrack?

10:04 20 A. Certainly.

10:04 21 Q. How do you know that?

10:04 22 A. Because they had programmers and graphic  
10:04 23 designers that created this interface. And with my  
10:04 24 software understanding and skills, I know they could  
10:04 25 have easily added this additional complexity to the

10:04 1 screen.

10:04 2 Q. So you believe DJI was capable of implementing  
10:04 3 this at that time?

10:04 4 A. Yes.

10:04 5 Q. Would this alternative design have infringed  
10:04 6 the asserted claims of the '909 patent?

10:04 7 A. No. It can't.

10:04 8 Q. Why not?

10:04 9 A. Because it doesn't practice this element.

10:04 10 It's kind of designed to not practice this element.

10:04 11 Q. Do you believe this alternative design would  
10:04 12 have been acceptable to consumers?

10:04 13 A. Sure.

10:04 14 Q. Why?

10:04 15 A. Because it gives them all the functionality  
10:04 16 they have now, in addition to the ability to close in  
10:04 17 on them or get further away from them.

10:05 18 Q. Did you identify any other alternative designs  
10:05 19 for the '909 patent?

10:05 20 A. Yes.

10:05 21 Q. What is that?

10:05 22 A. Well, the other idea that I came up with was  
10:05 23 when you're flying that drone and you got your phone up  
10:05 24 here and you're going to do ActiveTrack, let's say, as  
10:05 25 an example, when you position it and it's got a good

10:05 1 view of you, you could just tell it to start tracking  
10:05 2 you and following you around by just touching your  
10:05 3 picture on the screen of the phone.

10:05 4 And if you just touch your picture with your  
10:05 5 finger, it could just use that to then do computer  
10:05 6 vision, figure out, oh, I'm following Illah, and then  
10:05 7 it could follow Illah around.

10:05 8 Q. So you mean touching it without any bounding  
10:05 9 box?

10:05 10 A. That's right. You just put your finger on the  
10:05 11 object you want to follow like the dog or the human  
10:05 12 being.

10:05 13 Q. And is this something that would have been  
10:05 14 available to DJI at the time that it released Follow Me  
10:05 15 or ActiveTrack?

10:06 16 A. Sure.

10:06 17 Q. Do you think DJI was capable of implementing  
10:06 18 that?

10:06 19 A. Yes.

10:06 20 Q. Do you believe this alternative is acceptable  
10:06 21 to consumers?

10:06 22 A. Sure. It's convenient.

10:06 23 Q. And would this alternative infringe the  
10:06 24 asserted claims of the '909 patent?

10:06 25 A. No.

10:06 1 Q. Why is that?

10:06 2 A. Because you're not sending any position data  
10:06 3 or any movement data, ever.

10:06 4 Q. And for both of these alternatives, for the  
10:06 5 '909 patent, about how much engineering time would it  
10:06 6 take to implement either one?

10:06 7 A. It's a rough guess, but about one month of an  
10:06 8 engineer's time.

10:06 9 Q. Is that one month per alternative design?

10:06 10 A. Yes.

10:06 11 Q. Did you come up with any alternatives for the  
10:06 12 '752 patent?

10:06 13 A. I did.

10:06 14 Q. What is that?

10:06 15 A. The brake pedal and the parking brake  
10:06 16 metaphor. So I'll explain them to y'all.

10:06 17 In these drones we have right now, you're  
10:06 18 flying along by pushing on this, and when you let go,  
10:07 19 it slows down and stops, and then it does a position  
10:07 20 hold. It stays in position. And if for some reason  
10:07 21 DJI were to say that all infringes by some argument  
10:07 22 they're making --

10:07 23 Q. Do you mean Textron?

10:07 24 A. I'm sorry. Yes. Textron says that that all  
10:07 25 infringes by some argument they make, there's two real

10:07 1 simple changes that are both alternatives that would  
10:07 2 work, I think, great.

10:07 3 One of them is, like, having a brake pedal.  
10:07 4 So you could have it so when you push on this  
10:07 5 controller, the DJI drone starts going. And when you  
10:07 6 let go, instead of slowing down rapidly and stopping,  
10:07 7 it coasts just like your car coasts when you stop  
10:07 8 pushing on the accelerator pedal.

10:07 9 And if you want to stop coasting, you just  
10:07 10 push this button. It's a brake pedal. You push on the  
10:07 11 button, it slows down. That's the brake pedal idea.

10:07 12 Another idea for noninfringing that also  
10:07 13 avoids this whole thing is, like, a parking brake. So  
10:07 14 you push on this, and the drone starts going real fast.  
10:08 15 You let go, it could slow down and start hovering, but  
10:08 16 it doesn't position hold. It just hovers around. And  
10:08 17 if you push on it, it won't come back. It'll just stay  
10:08 18 wherever it is.

10:08 19 You push a button to turn on the parking  
10:08 20 brake, and then it just stays put so that -- you could  
10:08 21 have a brake pedal or you could have a parking brake,  
10:08 22 and either way you've avoided this issue.

10:08 23 Q. And why have you avoided this issue -- why  
10:08 24 would they not infringe?

10:08 25 A. Because it's never actually doing speed hold

10:08 1 when you let go of this stick. It's just coasting.

10:08 2 Q. And what about the parking brake example?

10:08 3 A. It's not ever going to a different mode that  
10:08 4 it has to re-engage out of because it's just speed  
10:08 5 holding the whole time until you hit the parking brake  
10:08 6 and it comes out of that.

10:08 7 Q. And you've been clicking buttons on an  
10:08 8 existing DJI remote; is that right?

10:08 9 A. I have. These have so many buttons on them  
10:08 10 that I rarely use. I think it'd be easy to re-use one  
10:09 11 of these buttons for a brake pedal or a parking brake.

10:09 12 Q. And these examples that you've given as  
10:09 13 alternative designs for the '752 patent, would those  
10:09 14 have been available at the time that Textron claims DJI  
10:09 15 first infringed?

10:09 16 A. Yes.

10:09 17 Q. How do you know that?

10:09 18 A. Because I've looked at the code, and I know  
10:09 19 the complexity of implementing something like this.  
10:09 20 It's very simple to do in the code -- in the software  
10:09 21 as is.

10:09 22 Q. And do you believe DJI had that capability at  
10:09 23 the time?

10:09 24 A. Certainly.

10:09 25 Q. Do you believe these alternative designs would

10:09 1 be acceptable to consumers?

10:09 2 A. Yes. It's how I drive my car.

10:09 3 Q. And I think you already answered that these  
10:09 4 designs wouldn't infringe the claims?

10:09 5 A. No.

10:09 6 Q. The asserted Claim 13?

10:09 7 A. No. They would not infringe Claim 13.

10:09 8 Q. And about how much engineering time would it  
10:09 9 take to implement these designs?

10:09 10 A. I'm sorry they're the same rough guesses, but  
10:09 11 about a month for each one.

10:09 12 Q. Have you ever seen a brake button on a DJI  
10:09 13 remote?

10:09 14 A. Yes. I have.

10:09 15 Q. And that's a remote that's currently sold?

10:10 16 A. Yes. It's one of their newest machines,  
10:10 17 actually has a brake button.

10:10 18 Q. Have you flown that?

10:10 19 A. I have flown it.

10:10 20 Q. Did it work?

10:10 21 A. It's fast. And the brake works real well too.

10:10 22 Q. Could you please summarize your opinions -- or  
10:10 23 let's start with the first one.

10:10 24 Q. What's your opinion on whether DJI infringes  
10:10 25 any of the asserted claims of the '909 and '752

10:10 1 patents?

10:10 2 A. This was from yesterday. But my opinion is  
10:10 3 that DJI does not infringe the four claims that are  
10:10 4 asserted in '909 patent, and it also doesn't infringe  
10:10 5 the one claim from the '752 patent.

10:10 6 Q. And what -- can you summarize your opinion on  
10:10 7 whether the asserted claims of the '909 patent and  
10:10 8 '752 -- and that the Claim 13 of the '752 patent are  
10:10 9 valid?

10:10 10 A. My opinion is that those four claims in the  
10:10 11 '909 patent and the one claim in '752 are not valid.  
10:10 12 They're invalid.

10:10 13 Q. We just went over your opinions on the  
10:10 14 technical value and alternatives. So I don't think we  
10:11 15 need to summarize those.

10:11 16 But just to summarize in general, the '909  
10:11 17 patent, that was about using velocity to follow another  
10:11 18 object, the arrows in a boat; is that right?

10:11 19 A. Yes. Relative velocity is what it's all  
10:11 20 about.

10:11 21 Q. And DJI, they use position, not velocity; is  
10:11 22 that right?

10:11 23 A. Correct.

10:11 24 Q. Now, the Claim 13, that's also about velocity;  
10:11 25 is that right?

10:11 1 A. Yeah. It's all about velocity in a way.

10:11 2 Q. But we -- does DJI use velocity when it's  
10:11 3 holding a position?

10:11 4 A. No. When it's staying put like I showed in  
10:11 5 the courtroom, you can pull it away and it'll go right  
10:11 6 back down to the same position. So the idea that it's  
10:11 7 holding zero velocity is just not true.

10:11 8 Q. So in your opinion, is DJI using what's  
10:11 9 claimed by Textron in the '909 and '752 patents for the  
10:11 10 asserted claims?

10:11 11 A. No.

10:11 12 Q. Have you looked at whether DJI itself has any  
10:12 13 patents?

10:12 14 A. I have.

10:12 15 Q. How many patents did you -- or patent or  
10:12 16 patent applications worldwide did you discover DJI has?

10:12 17 A. I know this number sounds crazy. I went on  
10:12 18 Google patent search and used it to search for patents  
10:12 19 that DJI owns, and I was so surprised at the number, I  
10:12 20 went back to the United States patent trademark search  
10:12 21 site and did the same thing again and went back and  
10:12 22 forth. But I got nearly 40,000 patents -- patent  
10:12 23 applications that DJI has around the world.

10:12 24 Q. What about patents with respect to  
10:12 25 tracking-type features like Follow Me?

10:12 1 A. Well, one of the nice things you can do when  
10:12 2 you do a patent search on the Internet is you can say I  
10:12 3 want to find only patents that have these words in  
10:12 4 them. So I looked up words like "tracking" and I still  
10:12 5 got 2,000 patents that DJI has applied for or has  
10:12 6 around the world just on tracking.

10:12 7 Q. And what about hovering? Does DJI have any  
10:12 8 patents on hovering?

10:12 9 A. I searched on the word "hovering" in the  
10:13 10 patent database, and DJI has 1,600 patents that are  
10:13 11 about hovering.

10:13 12 MR. SCHLESINGER: I pass the witness,  
10:13 13 Your Honor.

10:13 14 CROSS-EXAMINATION

10:13 15 BY MR. RICH:

10:13 16 Q. Good morning, Dr. Nourbakhsh.

10:13 17 A. Good morning, sir.

10:13 18 Q. You and I met in Pittsburgh a few months back  
10:13 19 when I flew up to take your deposition, didn't we?

10:13 20 A. That's exactly right.

10:13 21 Q. Good to see you again, Doctor.

10:13 22 A. Good to see you too.

10:13 23 Q. Now, you just talked about how DJI has nearly  
10:13 24 40,000 patents, applications and publications, didn't  
10:13 25 you?

10:13 1 A. I did.

10:13 2 Q. Out of those 40,000 patents and applications,  
10:13 3 you didn't identify a single one as invalidating the  
10:13 4 '909 patent, did you?

10:13 5 A. I didn't use them for that purpose, no.

10:14 6 Q. Sir, you didn't identify a single one that  
10:14 7 invalidates the '909 patent?

10:14 8 A. That's correct.

10:14 9 Q. And out of those 40,000 patents and  
10:14 10 applications, you didn't identify a single one as  
10:14 11 invalidating the '752 patent, right?

10:14 12 A. That's correct.

10:14 13 Q. Exactly zero of DJI's 40,000 patents and  
10:14 14 applications are ones that you say invalidate Textron's  
10:14 15 patents?

10:14 16 A. That's right. I didn't look at them that way.

10:14 17 Q. And you're not relying on any DJI products or  
10:14 18 development to say that the jury should invalidate  
10:14 19 Textron's patents?

10:14 20 A. That's right.

10:14 21 Q. Instead you're using the Frink reference and  
10:14 22 the Gold reference, but those guys have nothing to do  
10:14 23 with DJI, right?

10:14 24 A. Exactly.

10:14 25 Q. And so you're not saying to the jury that they

10:14 1 should take away Mr. Harris' and Mr. Christensen's  
10:14 2 patents because DJI came up with the ideas first,  
10:14 3 correct?

10:14 4 A. Correct.

10:14 5 Q. You're also not saying to the jury that DJI  
10:14 6 doesn't infringe Textron's patents just because they  
10:14 7 have their own patents, right?

10:15 8 A. That's not the reason they don't infringe, no.

10:15 9 Q. And you're not saying that just because DJI  
10:15 10 has patents, they don't infringe Textron's patents.

10:15 11 That wouldn't be the right analysis, right?

10:15 12 A. Correct.

10:15 13 Q. Let's say you moved on down from Pittsburgh  
10:15 14 and bought a house next door to me in Dallas, okay?

10:15 15 A. Sure.

10:15 16 Q. You and I each own our own properties, right?

10:15 17 A. Absolutely.

10:15 18 Q. Just because you own your own house does not  
10:15 19 mean you can come and trespass on my property, right?

10:15 20 A. I definitely wouldn't.

10:15 21 MR. RICH: May I have Dr. Nourbakhsh's  
10:15 22 Slide 3?

10:15 23 BY MR. RICH:

10:16 24 Q. Dr. Nourbakhsh, you remember putting up this  
10:16 25 slide in the start of your examination, right?

10:16 1 A. Yes.

10:16 2 Q. You're not here working for NASA, are you?

10:16 3 A. No. I'm retired. I'm a retired civil

10:16 4 servant.

10:16 5 Q. You're not here working for the Jet Propulsion

10:16 6 Laboratory?

10:16 7 A. No.

10:16 8 Q. And you're not here working for Carnegie

10:16 9 Mellon, are you?

10:16 10 A. No. I was hired to do this job even though

10:16 11 I'm a professor at Carnegie Mellon.

10:16 12 Q. But you're not here on behalf of Carnegie

10:16 13 Mellon, right?

10:16 14 A. No. I speak just for myself.

10:16 15 Q. You're actually here as part of your own

10:16 16 separate business as an expert, correct?

10:16 17 A. Yes.

10:16 18 Q. And you've worked on -- as an expert witness

10:16 19 in about four patent cases, right?

10:16 20 A. That's about right, plus or minus.

10:16 21 Q. When you were talking about your work history,

10:16 22 you didn't tell the jury that a significant part of

10:17 23 your work as an expert witness has been working for DJI

10:17 24 when DJI gets sued for patent infringement?

10:17 25 A. I don't know if the word "significant" is

10:17 1 right. I've worked with DJI and many other people.

10:17 2 I've worked with Finnegan on other cases too.

10:17 3 Finnegan is the name of the law firm that's  
10:17 4 representing DJI here.

10:17 5 Q. Finnegan is one of your clients, right?

10:17 6 A. That's right.

10:17 7 Q. The law firm that's representing DJI?

10:17 8 A. Yes.

10:17 9 Q. And you've served as an expert on three  
10:17 10 separate cases for DJI, correct?

10:17 11 A. I think that's the right number. Three.

10:17 12 Q. You have not served as an expert for anyone  
10:17 13 other than DJI in the past year?

10:17 14 A. In the past year, this is the only case I've  
10:17 15 been working on, I think.

10:17 16 Q. And so it's correct, the only person that  
10:17 17 you've worked -- the only company that you've worked  
10:17 18 for as an expert in the past year has been DJI?

10:17 19 A. That definitely is true.

10:17 20 Q. In each of those three cases where you were  
10:17 21 DJI's expert, DJI had been sued for patent  
10:17 22 infringement, correct?

10:17 23 A. They get sued a lot.

10:18 24 Q. They get sued a lot?

10:18 25 A. Yes.

10:18 1 Q. In each of these three cases where you were  
10:18 2 DJI's expert, you opined that either DJI did not  
10:18 3 infringe the patents or that the patents asserted  
10:18 4 against DJI were invalid, right?

10:18 5 A. That's right.

10:18 6 Q. Just like you're doing again here in this  
10:18 7 case?

10:18 8 A. Yes.

10:18 9 Q. For DJI?

10:18 10 A. Yes.

10:18 11 Q. You've actually never rendered an opinion  
10:18 12 against DJI?

10:18 13 A. That's right. I've never been hired by  
10:18 14 somebody to show how DJI is being a bad party to them.

10:18 15 Q. You've never opined that DJI infringes a  
10:18 16 patent, have you?

10:18 17 A. No.

10:18 18 Q. You've never opined that a patent asserted  
10:18 19 against DJI is valid?

10:18 20 A. I don't remember that.

10:18 21 Q. You told the jury that you have some of your  
10:18 22 own patents, right?

10:18 23 A. I do.

10:18 24 Q. You've never taken the position that one of  
10:18 25 your own patents is invalid, right?

10:19 1 A. Can you ask that again?

10:19 2 Q. You haven't taken the position that one of

10:19 3 your own patents is invalid, correct?

10:19 4 A. My own patent is invalid?

10:19 5 Q. Correct.

10:19 6 A. No. I've never sued myself or anything like

10:19 7 that.

10:19 8 Q. And so you spend a significant part of your

10:19 9 expert time trying to invalidate other people's patents

10:19 10 but not your own?

10:19 11 A. No. I spend a significant part of my expert

10:19 12 time trying to defend people to make sure that justice

10:19 13 has truth.

10:19 14 Q. Sir, I noticed you kept saying in your

10:19 15 examination that "we don't infringe."

10:19 16 A. I did try and correct myself when I did that.

10:19 17 Q. In fact, I did a word search on your

10:19 18 transcript from last night, you said "we" 34 times.

10:19 19 A. Okay.

10:19 20 Q. You wouldn't be surprised by that, right?

10:19 21 A. I had -- didn't count.

10:19 22 Q. You're supposed to be an independent expert in

10:19 23 this case, right?

10:19 24 A. I'm an independent expert hired by a

10:19 25 particular law firm, just like Dr. Michalson.

10:19 1 Q. Now, you said -- just said that DJI does not  
10:19 2 infringe -- sorry. Let me strike that.

10:20 3 Do you view yourself as part of DJI?

10:20 4 A. No.

10:20 5 Q. But DJI has paid you pretty handsomely,  
10:20 6 haven't they?

10:20 7 A. Well, I charge Finnegan, the law firm. My  
10:20 8 relationship is with them.

10:20 9 Q. And is Finnegan paying you?

10:20 10 A. Yes.

10:20 11 Q. Is DJI paying you?

10:20 12 A. I get paid by Finnegan. I give them invoices,  
10:20 13 and then they pay me. I'm sure that they're collecting  
10:20 14 the money from DJI to pay me. That must be how it's  
10:20 15 happening.

10:20 16 Q. Right. DJI is paying you \$850 every hour you  
10:20 17 work on this case, right?

10:20 18 A. Yes.

10:20 19 Q. At least as of January of this year, you  
10:20 20 already had billed between 200 and 500 hours in this  
10:20 21 case, right?

10:20 22 A. Approximately. Yes.

10:20 23 Q. And since January, you've probably billed  
10:20 24 another 200 hours to DJI for this case, right?

10:20 25 A. I think that's a fine estimate.

10:20 1 Q. And so taking the high end, you've billed DJI  
10:20 2 about 700 hours on this case alone, right?

10:20 3 A. That sounds high. I think it's probably  
10:21 4 closer to 4 or 500.

10:21 5 Q. Well, you gave me an estimate of 2 to  
10:21 6 500 hours, right?

10:21 7 A. Just sounds like a lot of hours. I have to  
10:21 8 fit this in with all my teaching and all the  
10:21 9 responsibilities at the university.

10:21 10 Q. Sir, you said 200 to 500 hours as of January,  
10:21 11 didn't you?

10:21 12 A. Okay.

10:21 13 Q. And if I take the 500 hours and I add another  
10:21 14 200 hours, that's 700 hours?

10:21 15 A. I'm just saying, you're taking the high end.  
10:21 16 It's a real high number, 500 compared to 200.

10:21 17 Q. Okay. Well, those are your words, right?

10:21 18 A. Yeah.

10:21 19 Q. And so if you take 700 hours times 850 every  
10:21 20 hour, that comes out to \$595,000, correct?

10:21 21 A. It does come out to that number.

10:21 22 Q. And you billed about 200 to 500 hours in the  
10:21 23 last case where you were DJI's noninfringement and  
10:21 24 invalidity expert, correct?

10:21 25 A. I don't remember, but I'm sure you've looked

10:21 1 it up and done your homework, sir.

10:21 2 Q. You're right. I did.

10:21 3 And that's another \$425,000 on the upper end  
10:22 4 of your own words for your hours worked.

10:22 5 That wouldn't surprise you, right?

10:22 6 A. The numbers are huge so they kind of surprise  
10:22 7 me. Because I'm pretty sure I have not gotten paid  
10:22 8 half a million dollars in this case, but you're doing  
10:22 9 the math at these high ends.

10:22 10 Q. Well, you gave me the estimate, sir.

10:22 11 A. Okay.

10:22 12 Q. And just factoring in this case and the last  
10:22 13 case where DJI got sued for infringement, taking your  
10:22 14 own hours' estimates, DJI's paid you about a million  
10:22 15 bucks to be its expert?

10:22 16 A. You're taking high estimates. I've never  
10:22 17 gotten that much money from consulting altogether. So  
10:22 18 I just disagree with you, but I get what you're doing.  
10:22 19 You're taking the high end and multiplying. I get it.

10:22 20 Q. And this doesn't even factor the third case  
10:22 21 that we didn't even talk about, right?

10:22 22 A. Sure.

10:22 23 Q. And you make about \$200,000 in your normal day  
10:22 24 job as a professor?

10:22 25 A. That's right.

10:22 1 Q. And so DJI's paid you roughly five times your  
10:23 2 normal salary as a professor?

10:23 3 A. I get paid as a professor every year. These  
10:23 4 cases are just once in a while when I have time to do a  
10:23 5 case. That's why I only have one this year because I  
10:23 6 can't imagine doing two of these at one time.

10:23 7 Q. Sir, if you add up the numbers, DJI's paid you  
10:23 8 about five times what you make in a year as a  
10:23 9 professor, right?

10:23 10 A. What I make -- okay. DJI, over the course of  
10:23 11 many years, has paid me more than I make in one year as  
10:23 12 a professor. Yes.

10:23 13 Q. Right.

10:23 14 Over the course of your many-year relationship  
10:23 15 saying that DJI doesn't infringe patents, correct?

10:23 16 A. Correct. Of course I've done other cases that  
10:23 17 aren't with DJI too.

10:23 18 Q. Now, you told the jury yesterday that you  
10:23 19 teach an ethics class, right?

10:23 20 A. Yes. I do.

10:23 21 Q. As part of your teaching, you won't accept  
10:23 22 funding from the United States Department of Defense,  
10:23 23 correct?

10:23 24 A. No. As part of my teaching, I teach my  
10:23 25 students to think about the social consequences of what

10:23 1 careers they choose.

10:23 2 And I have many students who've become  
10:24 3 outstanding members of the military, and I've had many  
10:24 4 students become outstanding members outside the  
10:24 5 military. I teach both sides.

10:24 6 MR. RICH: Objection, nonresponsive.

10:24 7 THE COURT: Sustained.

10:24 8 BY MR. RICH:

10:24 9 Q. Sir, you won't accept funding from the United  
10:24 10 States Department of Defense, right?

10:24 11 A. To the CREATE Lab, correct.

10:24 12 Q. But you've been paid about a million bucks by  
10:24 13 a company that the Department of Defense has identified  
10:24 14 as a Chinese military company?

10:24 15 A. They have.

10:24 16 Q. You submitted some reports in this case,  
10:24 17 correct, sir?

10:24 18 A. Yes.

10:24 19 Q. They were fairly voluminous, right?

10:24 20 A. They were long.

10:24 21 Q. You tried to focus on things that you thought  
10:24 22 were relevant to answering questions the jury has to  
10:24 23 answer, right?

10:24 24 A. Sure.

10:24 25 Q. You reviewed depositions from folks at DJI

10:24 1 that you thought would be important enough to reference  
10:24 2 in your report?

10:24 3 A. Yes.

10:24 4 Q. Loki Zhang's deposition, right?

10:24 5 A. Yes.

10:24 6 Q. Gavin Chen's?

10:25 7 A. Yes.

10:25 8 Q. Zhimeng Shang's?

10:25 9 A. That's right.

10:25 10 Q. Litian Zhang's?

10:25 11 A. Yes.

10:25 12 Q. Chuyue Ai's?

10:25 13 A. Yes.

10:25 14 Q. Those are all DJI employees who you reviewed  
10:25 15 their depositions, right?

10:25 16 A. I believe so.

10:25 17 Q. But not a single one of those people is going  
10:25 18 to come into this courtroom and take the stand and let  
10:25 19 us ask them questions, correct?

10:25 20 A. I'm not aware of the machinations of that. I  
10:25 21 know they played their witness testimony on the  
10:25 22 computer.

10:25 23 Q. You've been in the courtroom all week. I've  
10:25 24 seen you back there, right?

10:25 25 A. I have been here the whole time.

10:25 1 Q. And you haven't seen a single one of those  
10:25 2 guys come into the courtroom and take the stand, right?

10:25 3 A. Not live.

10:25 4 Q. Now, you talked about the video depositions.  
10:25 5 A video deposition is much different than sitting  
10:25 6 across from the jury on that witness stand, isn't it?

10:25 7 A. Yeah. This is, I think, more interesting.

10:25 8 Q. When you're on the stand, the jury gets to  
10:26 9 watch mannerisms. They get to watch witnesses raise  
10:26 10 their voice. They get to look at the witnesses in the  
10:26 11 eyes, right?

10:26 12 A. Yes.

10:26 13 Q. There's something about watching someone  
10:26 14 testify live versus reading their deposition on paper  
10:26 15 or watching it on video, isn't there?

10:26 16 A. Yes.

10:26 17 Q. Now, you also mentioned DJI's founder,  
10:26 18 Frank Wang, in your direct examination.

10:26 19 Do you remember that?

10:26 20 A. No.

10:26 21 Q. You don't remember talking about Frank Wang  
10:26 22 and DJI's founding?

10:26 23 A. I don't remember that part of the direct. I'm  
10:26 24 sorry.

10:26 25 Q. You were in here for Mr. Oushana's

10:26 1 examination, weren't you?

10:26 2 A. Yes.

10:26 3 Q. And you heard him talk about Mr. Wang, right?

10:26 4 A. Yes.

10:26 5 Q. He's the guy that cuts your checks, right?

10:26 6 A. I've explained, sir, that Finnegan cuts my  
10:26 7 checks.

10:26 8 Q. From Mr. Wang, right?

10:26 9 A. I don't know how -- I don't know how they get  
10:26 10 paid, in lump sums or monthly or whatnot. I have no  
10:27 11 idea how that works.

10:27 12 Q. Now, you've heard his name multiple times from  
10:27 13 DJI in this courtroom, right?

10:27 14 A. Yes.

10:27 15 Q. But when we talked, you couldn't even remember  
10:27 16 his name, right?

10:27 17 A. I'm sorry. When?

10:27 18 Q. When we talked in January, you couldn't  
10:27 19 remember his name.

10:27 20 A. No. I didn't know the name of the founder of  
10:27 21 that company.

10:27 22 Q. And you've never talked to Mr. Wang, right?

10:27 23 A. No.

10:27 24 Q. You didn't get to review his deposition  
10:27 25 transcript in this case, did you?

10:27 1 A. No.

10:27 2 Q. That's because DJI did not make him a witness

10:27 3 in this case, correct?

10:27 4 A. I don't know the -- I don't know the legal

10:27 5 decisions.

10:27 6 Q. I wasn't asking about legal decisions.

10:27 7 You didn't review any deposition testimony

10:27 8 from Mr. Wang?

10:27 9 A. Correct.

10:27 10 Q. And he didn't bother to show up in this

10:27 11 courtroom this week to let us ask him questions, did

10:27 12 he?

10:27 13 A. I don't think he's here.

10:27 14 Q. Even when his company is facing \$367 million

10:28 15 in infringement damages for his products, he didn't

10:28 16 show up, right?

10:28 17 A. Right. I haven't seen him here.

10:28 18 Q. Now, just before we came in here today, I

10:28 19 checked how much flights cost from Shenzhen to Dallas,

10:28 20 okay?

10:28 21 A. Sure.

10:28 22 Q. 2,500 bucks. Right? I'll tell you, it was

10:28 23 2,500 bucks. Not much for a drone billionaire to get

10:28 24 here, right?

10:28 25 A. You know, whenever I think of these chief

10:28 1 executives and people, I think their time is the thing  
10:28 2 that's super valuable, not the flight costs.

10:28 3 Q. But you wouldn't know because you didn't talk  
10:28 4 to Mr. Wang, right?

10:28 5 A. I haven't talked to him in my life.

10:28 6 Q. Neither have I.

10:28 7 And the fact that Mr. Wang did not bother to  
10:28 8 show up for cross-examination, did not stop DJI from  
10:28 9 cross-examining all the folks from Textron that took  
10:28 10 that stand, did it?

10:28 11 A. No. DJI -- I'm sorry. Finnegan  
10:29 12 cross-examined people here, yes.

10:29 13 Q. Right. And the fact that Mr. Wang didn't show  
10:29 14 up, didn't stop them from crossing the folks from  
10:29 15 Textron that showed up?

10:29 16 A. I think that's why they showed up.

10:29 17 Q. Sir, you have kids, right?

10:29 18 A. I do.

10:29 19 Q. They grow up fast, don't they?

10:29 20 A. At first, real slow, then gradually faster the  
10:29 21 older they get, I think.

10:29 22 Q. Right. I've got three kids; two girls and a  
10:29 23 boy, all right?

10:29 24 A. Sure.

10:29 25 Q. My boy is eight, and he loves to play

10:29 1 baseball, all right? Sometimes he's out in the yard  
10:29 2 throwing a bit wild. Hasn't happened yet, but you can  
10:29 3 imagine that if he threw the ball and it broke the  
10:29 4 neighbor's window, I'd hope he'd come tell me, right?

10:29 5 A. Yes.

10:29 6 Q. You teach your kids stuff like that, right?

10:29 7 A. I've had that specific issue with the soccer  
10:29 8 ball, actually.

10:29 9 Q. Right. It happens sometimes, right?

10:29 10 One of the books that you flashed up on your  
10:29 11 slides was a book about parenting, right?

10:29 12 A. Yes.

10:29 13 Q. If something like that happened, would you go  
10:30 14 over to the neighbor's house and apologize for your kid  
10:30 15 or would you say, son, you did it. You're going to  
10:30 16 have to go over to the neighbor's house and apologize?

10:30 17 A. Actually, I had my son mend the fence that he  
10:30 18 broke with the soccer ball. So I taught him how to  
10:30 19 mend it with carpentry because I woodwork, and then I  
10:30 20 had him go and do it.

10:30 21 Q. Right. You'd make him face the music, right?

10:30 22 A. Yes. But I also -- he was shy so I also  
10:30 23 helped him go and apologize in person, but I wanted him  
10:30 24 to fix the fence first.

10:30 25 Q. But the simple lesson that we teach our kids,

10:30 1 to show up and take responsibility, is apparently not  
10:30 2 something that DJI's founder knows, correct?

10:30 3 A. That's such a loaded question, I can't agree  
10:30 4 with it.

10:30 5 Q. Now, you understand that there are transcripts  
10:30 6 generated every single day we're in here showing what's  
10:30 7 happening, right?

10:30 8 A. Yes.

10:30 9 Q. Ms. Davis is up there working hard, taking  
10:30 10 down every word that's said, right?

10:31 11 A. I can see it happening.

10:31 12 Q. And we all get the transcripts. I don't know  
10:31 13 if you know this. We get them every day after work,  
10:31 14 okay?

10:31 15 A. Okay.

10:31 16 Q. And the transcripts are available if you want  
10:31 17 to review them, okay?

10:31 18 A. I didn't know that.

10:31 19 Q. And so all those transcripts get e-mailed  
10:31 20 around. We all look at them, and we might ask a  
10:31 21 witness a question about some of the testimony that  
10:31 22 happened the last day. You've seen that happen,  
10:31 23 actually, in this courtroom, right?

10:31 24 A. Yes.

10:31 25 Q. You think these daily transcripts are getting

10:31 1 sent over to Mr. Wang back in China?

10:31 2 A. I have no idea what's private or public in a  
10:31 3 courtroom like this.

10:31 4 Q. You think he's going to read your direct  
10:31 5 examination and say, look at this. Our guy,  
10:31 6 Dr. Nourbakhsh, got us out of another one?

10:31 7 A. I don't appreciate that tone, sir. I mean,  
10:31 8 I'm doing my best to find truth. I've been hired to be  
10:32 9 an expert just like Dr. Michalson.

10:32 10 Q. He's probably not going to be laughing when he  
10:32 11 gets to this part of the transcript, is he?

10:32 12 A. Same answer.

10:32 13 Q. Now, Textron's patents in this case relate to  
10:32 14 flight control technology, right?

10:32 15 A. That's a very general term, but I think it's  
10:32 16 fine.

10:32 17 Q. Now, let's talk about the patents that you  
10:32 18 flashed up on the screen that are your own patents,  
10:32 19 okay?

10:32 20 A. Sure.

10:32 21 Q. Now, your patents relate to a wide range of  
10:32 22 technologies, right?

10:32 23 A. Yes.

10:32 24 Q. Scheduling systems, correct?

10:32 25 A. Sure.

10:32 1 Q. A leg design for hopping, running and walking,  
10:32 2 right?

10:32 3 A. Yeah. It's for a very special kind of pogo  
10:32 4 stick.

10:32 5 Q. Air quality sensors?

10:32 6 A. Yes.

10:32 7 Q. Exactly zero of your own patents mentions  
10:32 8 flight control, right?

10:32 9 A. That's right.

10:32 10 Q. Have you ever seen the patent video that the  
10:33 11 jurors saw?

10:33 12 A. No.

10:33 13 Q. Well, it talks about how claims are sort of  
10:33 14 like the deed to your property, right?

10:33 15 A. Okay.

10:33 16 Q. Okay?

10:33 17 Your deed defines the metes and bounds of your  
10:33 18 property lines, okay?

10:33 19 A. Okay.

10:33 20 Q. And the deed says what it says, right?

10:33 21 A. Yes.

10:33 22 Q. You can't go over to your neighbor's house and  
10:33 23 take a red pen to their deed to make their property  
10:33 24 boundaries smaller, can you?

10:33 25 A. Correct.

10:33 1 Q. Just like the words of your deed matter, the  
10:33 2 words of a claim matter, right?

10:33 3 A. Yes.

10:33 4 Q. I think you said it multiple times yesterday  
10:33 5 that words matter, right?

10:33 6 A. I did.

10:33 7 Q. One of the reasons that you say DJI doesn't  
10:33 8 infringe Claim 13 of the '752 patent is that you say  
10:33 9 the claim requires the aircraft to have an onboard  
10:33 10 controller, right?

10:33 11 A. That's -- the language is not that, but the  
10:34 12 language is that the aircraft has, and then those four  
10:34 13 controllers we talked about, yeah.

10:34 14 Q. Right. And you depicted an aircraft -- a  
10:34 15 helicopter and said that the controllers were onboard  
10:34 16 the helicopter, right?

10:34 17 A. You're adding the word "onboard." I said the  
10:34 18 "having" word in the claim says that the aircraft has  
10:34 19 these. So I showed a picture of a helicopter because  
10:34 20 it has those controllers. It's the verb "have to  
10:34 21 have."

10:34 22 Q. Can we have Slide 25 from Dr. Michalson's  
10:34 23 (sic) demonstratives?

10:34 24 Your opinion is that the claim in this case is  
10:34 25 limited to a manned rotary aircraft; is that not right?

10:34 1 A. No. You're adding words to the claim. We  
10:34 2 just said the words matter. You're adding words that I  
10:34 3 never added to the claim.

10:34 4 Q. So the claim is broad enough to cover an  
10:34 5 unmanned rotary aircraft?

10:34 6 A. It doesn't say whether it's manned or unmanned  
10:34 7 at all. It just says the aircraft has a longitudinal  
10:35 8 controller, et cetera.

10:35 9 Q. Sir, is the claim limited to a manned rotary  
10:35 10 aircraft?

10:35 11 A. No. There's no word "manned" in the claim.

10:35 12 Q. Right. It's broad enough to cover manned or  
10:35 13 unmanned, isn't it?

10:35 14 A. It's not about being manned or unmanned. Its  
10:35 15 narrowness is defined by how it says the "rotary  
10:35 16 aircraft having" and then the stuff after having.

10:35 17 MR. RICH: Objection, nonresponsive.

10:35 18 THE COURT: Sustained.

10:35 19 BY MR. RICH:

10:35 20 Q. Sir, the claim is not -- strike that.

10:35 21 Rotary aircraft encompasses both UAVs and  
10:35 22 manned aircraft, correct?

10:35 23 A. Yes.

10:35 24 Q. The claim is not limited to a manned rotary  
10:35 25 aircraft?

10:35 1 A. Correct.

10:35 2 Q. The words of Claim 13 do not say that the  
10:35 3 controllers are on board the rotary aircraft, correct?

10:35 4 A. The word "on board" is not used, correct.

10:36 5 Q. The claim does not say that the controllers  
10:36 6 are physically part of the rotary aircraft, correct?

10:36 7 A. The words "physically" and the words "part"  
10:36 8 aren't used. Correct.

10:36 9 Q. And just so we're clear, the claim does not  
10:36 10 say manned rotary aircraft, right?

10:36 11 A. That's right. The word "manned" isn't in the  
10:36 12 claim. It doesn't say manned rotary aircraft.

10:36 13 Q. And the words "onboard controllers" are not in  
10:36 14 the claim?

10:36 15 A. That's right. The word "onboard" has been  
10:37 16 written on here with red ink. It's not in the claim.

10:37 17 Q. Right. Those are the concepts you're adding  
10:37 18 into the claim?

10:37 19 A. I disagree completely.

10:37 20 Q. The claim doesn't say that there is a pilot on  
10:37 21 board the aircraft, does it?

10:37 22 A. No. The word "pilot" is not in the claim  
10:37 23 either.

10:37 24 MR. RICH: May I have Dr. Nourbakhsh's  
10:37 25 Slide 47, please?

10:37 1 BY MR. RICH:

10:37 2 Q. Do you remember showing the jury this slide  
10:37 3 yesterday?

10:37 4 A. Yes.

10:37 5 Q. And you see the words "pedals" and "cyclic  
10:37 6 stick" and "collective stick"?

10:37 7 A. I do.

10:37 8 Q. And then you went to Slide 55, and you used  
10:37 9 this same figure from that helicopter you were showing  
10:37 10 and those sticks to try to map them to the language of  
10:37 11 the claim, correct?

10:38 12 A. Yes.

10:38 13 Q. The claim does not use the word "pedals," does  
10:38 14 it?

10:38 15 A. No. It doesn't have the word "pedals" in it.

10:38 16 Q. Claim doesn't use the word "cyclic stick,"  
10:38 17 does it?

10:38 18 A. It doesn't have that word in it.

10:38 19 Q. Claim also doesn't say collective stick,  
10:38 20 right?

10:38 21 A. That's right. It doesn't have that word in  
10:38 22 it.

10:38 23 Q. The claim instead uses the term "rotary  
10:38 24 aircraft having the four controllers," right?

10:38 25 A. Correct.

10:38 1 Q. And a drone is a type of rotary aircraft,  
10:38 2 right?

10:38 3 A. Correct.

10:38 4 Q. You sat in the courtroom when Mr. Christensen  
10:38 5 testified two days ago, right?

10:38 6 A. I did.

10:38 7 MR. RICH: May I have the Day 1 trial  
10:38 8 transcript at 229, Lines 16 through 17?

10:38 9 BY MR. RICH:

10:38 10 Q. This is one of those transcripts I was talking  
10:38 11 about just a minute ago.

10:38 12 All right. This is a question Mr. Christensen  
10:39 13 was asked, and he answered that he does think his  
10:39 14 invention is applicable and useful for drones.

10:39 15 Do you see that?

10:39 16 A. I do.

10:39 17 Q. Now, you told the jury you fly your own  
10:39 18 personal plane, right?

10:39 19 A. I do.

10:39 20 Q. Yet you're here disagreeing with  
10:39 21 Mr. Christensen about the words of his -- what the  
10:39 22 words of his invention mean even though he retired from  
10:39 23 the Air Force after flying F-16s and F-22s, right?

10:39 24 A. Well, I don't disagree with his words. If you  
10:39 25 would like me to explain, I can explain.

10:39 1 Q. One thing we can agree on is that the claim  
10:39 2 just says: The rotary aircraft has the controllers,  
10:39 3 right?

10:39 4 A. Yes.

10:39 5 Q. Now, my wife bought a new TV last year. I was  
10:39 6 pretty excited, okay?

10:39 7 A. Okay.

10:39 8 Q. You probably won't be surprised to learn that  
10:39 9 the TV had a remote controller with it in the box.

10:39 10 A. I think you just used the word to "have."

10:39 11 Q. Right. The TV has a remote with it, right?

10:40 12 A. With it. Yes. I understand your use.

10:40 13 Q. You're not aware of any DJI drones that are  
10:40 14 sold in the United States that don't have a remote  
10:40 15 controller in the box with it?

10:40 16 A. No. I'm not.

10:40 17 Q. In fact, this box right here is an example of  
10:40 18 the boxes that DJI drones come in?

10:40 19 A. Yes.

10:40 20 Q. Right. And it has a drone that has a remote  
10:40 21 controller with it?

10:40 22 A. Yes. It has a drone in the box, and it has a  
10:40 23 remote control in the box.

10:40 24 Q. Did you see the padding on that box?

10:40 25 A. The foam?

10:40 1 Q. Yeah.

10:40 2 A. I do see it.

10:40 3 Q. Pretty thick padding, right?

10:40 4 A. I think -- hopefully, it's just thick enough.

10:40 5 Q. You need a lot of padding to protect one of

10:40 6 those drones that costs 2 or 3,000 bucks, don't you?

10:40 7 A. I think they cost anywhere from 200 bucks up.

10:40 8 Q. Now, you used the term "fly-by-wire"

10:40 9 yesterday, right?

10:40 10 A. I did.

10:41 11 Q. You said yesterday that the drones don't meet

10:41 12 the rotary aircraft element because the drones are

10:41 13 not -- this is your quote -- "not fly-by-wire."

10:41 14 Do you remember that?

10:41 15 A. I remember that. It's a little out of

10:41 16 context, but I remember that. Yes, sir.

10:41 17 Q. That was your testimony that DJI drones are

10:41 18 not fly-by-wire, right?

10:41 19 A. They aren't. That's true.

10:41 20 Q. But, sir, a drone is a type of fly-by-wire

10:41 21 aircraft, right?

10:41 22 A. I disagree with your use of the words.

10:41 23 Q. You disagree that a drone is a type of

10:41 24 fly-by-wire system?

10:41 25 A. Usually when we talk about drones, we're

10:41 1 talking about a remote control system.

10:41 2 MR. RICH: Objection, nonresponsive.

10:41 3 THE COURT: Sustained.

4 A. Sorry.

10:41 5 BY MR. RICH:

10:41 6 Q. Dr. Nourbakhsh, you agree that a drone is a  
10:41 7 type of fly-by-wire system?

10:41 8 A. I disagree.

10:41 9 Q. Sir, I took your deposition in this case,  
10:41 10 didn't I?

10:42 11 A. Yes.

10:42 12 Q. And you were under oath in your deposition,  
10:42 13 weren't you?

10:42 14 A. Yes.

10:42 15 Q. And there was a court reporter there, right?

10:42 16 A. Yes.

10:42 17 Q. And they were taking down the testimony?

10:42 18 A. That's right.

10:42 19 Q. And at that deposition I asked you: A drone  
10:42 20 is a type of fly-by-wire system, right?

10:42 21 A. Yes.

10:42 22 Q. And you answered: The whole system of a  
10:42 23 remote control system is a fly-by-wire. Yes?

10:42 24 Did I ask that question and did you give that  
10:42 25 answer?

10:42 1 A. I don't remember the details, but I bet I did  
10:42 2 give that answer because you're asking me this way. So  
10:42 3 yes.

10:42 4 THE COURT: Counsel, if you're at a point  
10:42 5 we can break, why don't we take our morning recess?

10:42 6 MR. RICH: Certainly, Your Honor.

10:42 7 THE COURT: Ladies and gentlemen of the  
10:42 8 jury, we'll stand in recess for about ten minutes.

10:42 9 THE BAILIFF: All rise.

10:42 10 (Jury exited the courtroom.)

10:42 11 THE COURT: Doctor, you may step down.

10:43 12 You may be seated.

10:43 13 Is there anything we need to take up?

10:43 14 MR. MEEK: Nothing from plaintiff.

10:43 15 MR. SCHLESINGER: No, Your Honor.

10:43 16 (Recess taken.)

10:56 17 THE BAILIFF: All rise.

10:56 18 THE COURT: Please remain standing for  
10:56 19 the jury.

10:56 20 (Jury entered the courtroom.)

10:56 21 THE COURT: Thank you. You may be  
10:56 22 seated.

10:57 23 MR. RICH: Your Honor, may I approach the  
10:57 24 witness with binders?

10:57 25 THE COURT: Sure.

10:58 1 BY MR. RICH:

10:58 2 Q. All right. Dr. Nourbakhsh, are you ready to  
10:58 3 continue, sir?

10:58 4 A. Yes.

10:58 5 Q. All right. Yesterday when you were talking  
10:58 6 about the controllers on board the aircraft, you talked  
10:58 7 about something called "degraded visual environments,"  
10:58 8 right?

10:58 9 A. Correct.

10:58 10 Q. Fog is a type of degraded visual environment,  
10:58 11 correct?

10:58 12 A. Yes.

10:58 13 Q. You talked about how DJI's user manuals say do  
10:58 14 not use in fog, right?

10:58 15 A. Yes.

10:58 16 Q. And you told the jury that you're not allowed  
10:58 17 to fly this if there's fog, correct?

10:58 18 A. Correct.

10:58 19 Q. You said that's illegal, right?

10:58 20 A. No. I said the FAA says it's illegal to fly  
10:58 21 it if you can't see it.

10:58 22 Q. You also said that you can't even touch your  
10:59 23 drone in those situations, right?

10:59 24 A. Yes.

10:59 25 Q. But you, yourself, have flown drones in fog?

10:59 1 A. Yes. That's true. I have.

10:59 2 Q. So you didn't follow DJI's own rules?

10:59 3 A. Correct.

10:59 4 Q. And so when people break the rules and fly

10:59 5 their drones in fog, rain, smog, DJI has to make sure

10:59 6 that there are features, like Mr. Christensen's

10:59 7 automatic hovering technology, to make sure the drones

10:59 8 don't crash, right?

10:59 9 A. I think there should be features to keep it

10:59 10 from crashing. I don't think they need to be like

10:59 11 Mr. Christensen's claim.

10:59 12 Q. Automatic hovering is one of those features

10:59 13 that prevent the drone from crashing, right?

10:59 14 A. That feature is a good feature, yes.

10:59 15 Q. You submitted an opinion in your expert report

10:59 16 that you gave to us in this case that DJI doesn't

10:59 17 infringe the patent '752, right?

11:00 18 A. Claim 13, yes.

11:00 19 Q. And you tried to be as careful as possible

11:00 20 when you wrote that report, right?

11:00 21 A. I tried.

11:00 22 Q. You're a pretty detail-oriented guy, right?

11:00 23 A. I try.

11:00 24 Q. As part of that report, you included a section

11:00 25 that provided your understanding of the law that you

11:00 1 were supposed to apply to the case, right?

11:00 2 A. Yes.

11:00 3 Q. And DJI's attorneys provided you with that  
11:00 4 law, right?

11:00 5 A. Yes. They helped make sure we're getting it  
11:00 6 right.

11:00 7 Q. Now, all of the instructions from DJI's  
11:00 8 attorneys on the law to apply to this case were in your  
11:00 9 report on noninfringement, right?

11:00 10 A. Yes.

11:00 11 Q. You didn't omit any instructions from DJI's  
11:00 12 attorneys in that report, right?

11:00 13 A. Not that I'm aware.

11:00 14 Q. You've heard the saying "the rules of the  
11:00 15 road," right?

11:00 16 A. Sure.

11:00 17 Q. It's a metaphor for the rules that we're  
11:00 18 supposed to follow, right?

11:00 19 A. Yes.

11:00 20 Q. The Court has given us a rule of the road for  
11:01 21 the infringement analysis for the '752 patent, correct?

11:01 22 A. Okay.

11:01 23 Q. And that's because DJI did not produce certain  
11:01 24 source code, you were supposed to presume that the  
11:01 25 source code would have been favorable to Textron and

11:01 1 its infringement allegations on the '752 patent,  
11:01 2 correct?

11:01 3 A. Correct.

11:01 4 Q. But you did not include anything about that  
11:01 5 presumption in your report on noninfringement, did you?

11:01 6 A. I didn't write about it, no.

11:01 7 Q. And you didn't mention the presumption in your  
11:01 8 direct examination just this morning?

11:01 9 A. No.

11:01 10 Q. Or yesterday?

11:01 11 A. Correct.

11:01 12 Q. Now, even though the rule of the road is to  
11:01 13 presume the missing code is favorable to Textron's  
11:01 14 infringement case for the '752 patent, you testified  
11:01 15 yesterday that that code's not relevant, didn't you?

11:01 16 A. I did so.

11:01 17 MR. RICH: May I please have Plaintiff's  
11:02 18 Exhibit 106?

11:02 19 BY MR. RICH:

11:02 20 Q. Okay. You recognize this as DJI's application  
11:02 21 to the Chinese government to export some of its source  
11:02 22 code for this case, right?

11:02 23 A. I do.

11:02 24 Q. DJI wouldn't lie to the Chinese government,  
11:02 25 would it?

11:02 1 A. I certainly hope nobody lies to nobody.  
11:02 2 Q. Did you hear your counsel ask one of our  
11:02 3 witnesses if they knew what would happen if someone  
11:02 4 lied to the Chinese government?

11:02 5 A. I remember that.

11:02 6 Q. You know what would happen if they did?

11:02 7 A. Probably bad things, fines and imprisonment.

11:02 8 Q. Probably bad things.

11:02 9 MR. RICH: Let's go to Page 7 of  
11:02 10 Plaintiff's Exhibit 106.

11:02 11 Can we please zoom in on the top?

11:02 12 BY MR. RICH:

11:02 13 Q. Okay. Doctor, do you see "Purpose of  
11:02 14 Technology Export" at the top?

11:02 15 A. I do.

11:02 16 Q. Okay. The purpose of the application that DJI  
11:03 17 put right here was to provide relevant source codes in  
11:03 18 a litigation to fulfill discovery obligations under  
11:03 19 civil litigation law of the United States.

11:03 20 Do you see that?

11:03 21 A. Sure.

11:03 22 Q. DJI told the Chinese government that the  
11:03 23 missing code is relevant source code?

11:03 24 A. Relevant to the discovery obligations, yeah.

11:03 25 Q. Sir, DJI told the Chinese government that

11:03 1 there was relevant source code, correct?

11:03 2 A. Yes.

11:03 3 Q. And you're here saying it's irrelevant,

11:03 4 correct?

11:03 5 A. To Claim 13, yeah.

11:03 6 Q. But DJI didn't say it was irrelevant to the

11:03 7 Chinese government, right?

11:03 8 A. DJI did not tell the Chinese government this  
11:03 9 source code is irrelevant to Claim 13, no. They didn't  
11:03 10 say that.

11:04 11 Q. And to be clear, sir, you have not seen the  
11:04 12 missing source code, have you?

11:04 13 A. No. I haven't.

11:04 14 Q. Yet you're telling the jury that code you've  
11:04 15 never seen in your life is totally irrelevant, aren't  
11:04 16 you?

11:04 17 A. No. I'm telling the jury it's irrelevant to  
11:04 18 understanding infringement or noninfringement of  
11:04 19 Claim 13.

11:04 20 MR. RICH: Objection, nonresponsive.

11:04 21 THE COURT: Sustained.

11:04 22 BY MR. RICH:

11:04 23 Q. Sir, you're telling the jury that code you've  
11:04 24 never seen in your life is irrelevant, aren't you?

11:04 25 A. No.

11:04 1 Q. You have seen the missing code?

11:04 2 A. No.

11:04 3 Q. But you testified it was irrelevant yesterday?

11:04 4 THE WITNESS: Your Honor, I don't know  
11:04 5 how to respond.

11:04 6 THE COURT: I understood the question.  
11:04 7 I'm not sure why you can't.

11:04 8 A. Okay. Ask it one more time.

11:04 9 BY MR. RICH:

11:04 10 Q. You testified it was irrelevant yesterday,  
11:04 11 correct?

11:04 12 A. Yes.

11:04 13 Q. And you've never seen it in your life,  
11:04 14 correct?

11:04 15 A. That's right.

11:04 16 Q. Thank you.

11:04 17 Now, you did a demonstration in this courtroom  
11:05 18 yesterday, right?

11:05 19 A. I did.

11:05 20 Q. You had the drone in the air flying and went  
11:05 21 up to push it with your finger like this, right?

11:05 22 A. I pulled on it with my finger like this.

11:05 23 Q. Now, you gave us this video the other day,  
11:05 24 didn't you? This is a still shot, right?

11:05 25 A. Yes.

11:05 1 Q. And that's you?

11:05 2 A. Yes.

11:05 3 Q. So you did the same demonstration a couple

11:05 4 days ago?

11:05 5 A. Yes.

11:05 6 Q. Have you ever seen that symbol in your

11:06 7 lifetime?

11:06 8 A. Yes.

11:06 9 Q. Tells you not to do something, doesn't it?

11:06 10 A. Yes.

11:06 11 MR. RICH: Can we have the Phantom 4

11:06 12 series disclaimer and safety guidelines?

11:06 13 BY MR. RICH:

11:06 14 Q. Have you ever seen this document before,

11:06 15 Doctor?

11:06 16 A. I believe so, yes.

11:06 17 Q. It's a DJI document, right?

11:06 18 A. Yes.

11:06 19 Q. Called "Disclaimer and Safety Guidelines,"

11:06 20 right?

11:06 21 A. Yes.

11:06 22 Q. This document lays out some of DJI's rules for

11:06 23 safety, right?

11:06 24 A. Yes.

11:06 25 MR. RICH: Let's go to Page 3 of this

11:06 1 document.

11:06 2 Zoom in on the bottom left-hand corner,  
11:06 3 please.

11:06 4 BY MR. RICH:

11:06 5 Q. You see the "don't do it" symbol over the  
11:07 6 person's finger approaching the drone?

11:07 7 A. The propellers, yeah.

11:07 8 Q. And so DJI's telling the world, stay away from  
11:07 9 the rotating propellers and motors, right?

11:07 10 A. Yes.

11:07 11 Q. In all of the cases where you've said that DJI  
11:07 12 doesn't infringe a patent, is this the first one where  
11:07 13 you've broken DJI's own rules to make your  
11:07 14 noninfringement argument?

11:07 15 A. I don't remember.

11:07 16 Q. Now, you heard that Mr. Baker over there does  
11:07 17 public safety marketing at Creative Studios?

11:07 18 A. Yes.

11:07 19 Q. Did he give you a talking-to after that  
11:07 20 yesterday when he saw you break this rule?

11:07 21 A. I don't believe so.

11:07 22 Q. Now, you said in your demonstration that it  
11:07 23 shows that DJI holds position, right?

11:07 24 A. Yes.

11:07 25 Q. When you're holding position, you're holding,

11:07 1 generally speaking, at zero, aren't you?

11:07 2 A. At times, yes.

11:08 3 MR. RICH: May I have the '752 patent,  
11:08 4 please?

11:08 5 May I have Column 9 of the '752, please?

11:08 6 And if you could please zoom in on  
11:08 7 Lines 23 through 27.

11:08 8 BY MR. RICH:

11:08 9 Q. Okay. You see the "PH" there?

11:08 10 A. I do.

11:08 11 Q. That's position hold?

11:08 12 A. Yes.

11:08 13 Q. And that's where Mr. Christensen's patent is  
11:08 14 talking about position hold?

11:08 15 A. In this section, sure.

11:08 16 Q. And what Mr. Christensen's patent says at  
11:08 17 Line 24: With position hold engaged, the captured  
11:08 18 position will be tightly held even in the presence of  
11:09 19 disturbances due to gusty winds or control inputs in  
11:09 20 the directional or vertical axes.

11:09 21 You see that, right?

11:09 22 A. Yes.

11:09 23 Q. And the patent says in the next sentence that:  
11:09 24 If the aircraft drifts off from the captured position,  
11:09 25 the position hold mode will make corrections to bring

11:09 1 it back.

11:09 2 You see that, right?

11:09 3 A. I do.

11:09 4 Q. And so just because there are small  
11:09 5 corrections in the speed, that doesn't mean there's not  
11:09 6 a forward speed hold loop in Claim 13, right?

11:09 7 A. I don't understand. This is talking about  
11:09 8 position hold. I agree with Dr. Christensen.

11:09 9 Can you ask the question in a way that I can  
11:09 10 give a yes/no answer?

11:09 11 Q. Yes, sir.

11:09 12 Just because there are corrections in the  
11:09 13 speed, that doesn't mean that there's not a forward  
11:09 14 speed hold loop in Claim 13, right?

11:09 15 A. Just because there are corrections in the  
11:09 16 speed doesn't mean there isn't? So it does mean there  
11:09 17 is?

11:10 18 Yes. Just because there are corrections in  
11:10 19 the speed means you're doing -- you could be -- you  
11:10 20 could be doing position hold, yes.

11:10 21 Q. Sir, just because there are tiny corrections  
11:10 22 in the speed that you're trying to hold, that doesn't  
11:10 23 mean that it's not a forward speed hold loop, correct?

11:10 24 A. Correct.

11:10 25 Q. And when Claim 13 requires the forward speed

11:10 1 hold loop to engage when the controller is returned to  
11:10 2 a detent position, the drone just needs to consistently  
11:10 3 hold its forward speed, right?

11:10 4 A. That's fine.

11:10 5 Q. It sure looked yesterday to my eyes that the  
11:10 6 drone you flew was holding speed at zero until you went  
11:10 7 up and knocked it off its normal operation, okay?

11:10 8 A. I disagree a little bit.

11:10 9 Q. When you went up and knocked that drone off  
11:10 10 its normal hovering operation, you broke DJI's safety  
11:10 11 guidelines telling you not to do exactly what you did,  
11:11 12 correct?

11:11 13 A. I disagree with that too.

11:11 14 Q. But we don't have to trust our eyes on this  
11:11 15 one because we have Mr. Shang, right?

11:11 16 A. I like trusting everything. I want to talk to  
11:11 17 people, see it and look at code.

11:11 18 Q. Mr. Shang, who's one of the folks in charge of  
11:11 19 DJI's flight control technology, correct?

11:11 20 A. Yes.

11:11 21 Q. Now, unlike you and me, Mr. Shang had full  
11:11 22 access to the flight control code, right?

11:11 23 A. Sure.

11:11 24 Q. You didn't mention Mr. Shang one time during  
11:11 25 your examination yesterday.

11:11 1 Did you know that?

11:11 2 A. I do know that.

11:11 3 Q. You did mention that you had some closed-door  
11:11 4 talks with DJI engineers, though, didn't you?

11:11 5 A. I did.

11:11 6 Q. I wasn't invited to those closed-door talks,  
11:11 7 was I?

11:11 8 A. Not if they're closed-door.

11:11 9 Q. You didn't put Mr. Shang under oath when you  
11:12 10 had those closed-door talks with him, did you?

11:12 11 A. No.

11:12 12 Q. Well, sir, I personally got to depose  
11:12 13 Mr. Shang, and he was under oath, okay?

11:12 14 A. I understand.

11:12 15 MR. RICH: May I please have  
11:12 16 Dr. Michalson's Slide 30?

11:12 17 BY MR. RICH:

11:12 18 Q. You saw this the other day in the courtroom,  
11:12 19 correct?

11:12 20 A. I did.

11:12 21 Q. And this is Mr. Shang on the left?

11:12 22 A. Yes.

11:12 23 Q. And this was where Dr. Michalson talked about  
11:12 24 the forward speed hold loop, right?

11:12 25 A. I do.

11:12 1 Q. And you see that Mr. Shang said if the right  
11:12 2 stick is centered, a DJI drone will hold its forward  
11:12 3 speed at zero, correct?

11:12 4 A. I see that.

11:12 5 Q. And he said if the right stick is centered, a  
11:12 6 DJI drone will hold its backward speed at zero,  
11:12 7 correct?

11:12 8 A. He said that.

11:12 9 Q. And if the right stick is centered, a DJI  
11:12 10 drone will hold its left speed at zero, correct?

11:13 11 A. He said that too.

11:13 12 Q. And he also said that if the right stick is  
11:13 13 centered, a DJI drone will hold right speed at zero,  
11:13 14 correct?

11:13 15 A. He said that too.

11:13 16 Q. Now, in DJI's drones when the user centers the  
11:13 17 control stick to the detent position, the horizontal  
11:13 18 velocity command is set to zero, correct?

11:13 19 A. Yes.

11:13 20 Q. The drone can issue a horizontal speed command  
11:13 21 of zero and then issue the same command again, can't  
11:13 22 it?

11:13 23 A. Yes.

11:13 24 Q. When you were asked yesterday how you know  
11:13 25 drones are holding a position, you pulled up a source

11:13 1 code file, didn't you?

11:13 2 A. I did.

11:13 3 Q. And you showed a function name "horizontal  
11:14 4 position control."

11:14 5 Do you remember that?

11:14 6 A. I do.

11:14 7 Q. But you left out something important. You're  
11:14 8 aware that one of the files that DJI withheld in this  
11:14 9 case is called the "horizontal velocity control,"  
11:14 10 right?

11:14 11 A. Okay.

11:14 12 Q. Now, they only gave us the position control  
11:14 13 code but not the velocity control code.

11:14 14 You understand that?

11:14 15 A. So they gave us a file that has one name, and  
11:14 16 they didn't give us a file that has a different name.  
11:14 17 Okay.

11:14 18 Q. Right. The file that you showed yesterday was  
11:14 19 horizontal position control, but DJI withheld the file  
11:14 20 horizontal velocity control run?

11:14 21 A. Okay.

11:14 22 Q. So you think it's fair to be saying that DJI  
11:14 23 only holds position when DJI didn't give the file  
11:14 24 titled the function name "horizontal velocity control  
11:14 25 run"?

11:14 1 A. You know, the file names don't have anything  
11:14 2 to do with my opinion based on the code that I read.  
11:14 3 Q. One thing that we can be sure of here, though,  
11:15 4 is that Mr. Shang testified under oath that DJI holds  
11:15 5 forwards, backwards, left and right speed at zero,  
11:15 6 correct?

11:15 7 A. He said that.

11:15 8 Q. Now, you also talked yesterday about DJI not  
11:15 9 infringing because it doesn't control pitch rate.

11:15 10 Do you remember that?

11:15 11 A. I do.

11:15 12 MR. RICH: Can I have Claim 13, please?  
11:15 13 Can we please zoom in on: Wherein  
11:15 14 longitudinal maneuverability of the rotary aircraft is  
11:15 15 controlled by either the pitch attitude or pitch rate  
11:15 16 loop?

11:15 17 Claim 13, right around Line 40.

11:16 18 BY MR. RICH:

11:16 19 Q. All right. Doctor, you can see that --

11:16 20 A. I can.

11:16 21 Q. -- okay? Okay.

11:16 22 Now, the claim refers to longitudinal  
11:16 23 maneuverability, right?

11:16 24 A. Yes.

11:16 25 Q. And it says longitudinal maneuverability is

11:16 1 controlled by one of two types of loops, right?

11:16 2 A. Correct.

11:16 3 Q. The thing being controlled here is  
11:16 4 longitudinal maneuverability?

11:16 5 A. Correct.

11:16 6 Q. The claim does not say it the other way around  
11:16 7 that there is -- let me strike that.

11:16 8 The claim doesn't say it the other way around.

11:16 9 The words "control pitch attitude" don't appear in the  
11:16 10 claim, correct?

11:16 11 A. I think if you're saying it's using the  
11:16 12 passive voice rather than the active voice, yeah. It's  
11:16 13 saying controlled by rather than controls.

11:16 14 Q. Correct. The claim does not say control pitch  
11:16 15 attitude, right?

11:16 16 A. No. It says controlled by pitch attitude.

11:17 17 Q. The thing being controlled is longitudinal  
11:17 18 maneuverability, right?

11:17 19 A. The -- it's -- yes. An inverted passive  
11:17 20 voice. So the object is longitudinal maneuverability,  
11:17 21 the subject is the attitude loop.

11:17 22 Q. Now, you said yesterday, I quote: DJI doesn't  
11:17 23 care about its attitude one bit.

11:17 24 Do you remember that?

11:17 25 A. Sure. I can believe that quote.

11:17 1 Q. Even though you testified under oath yesterday  
11:17 2 that DJI doesn't care about attitude, DJI drones have  
11:17 3 an attitude loop, don't they?

11:17 4 A. Of course. All the loops have to be there.

11:17 5 Q. But they don't care about attitude?

11:17 6 A. I think you're taking that quote way out of  
11:17 7 context, sir.

11:17 8 Q. Well, it was your words, wasn't it, Doctor?

11:17 9 A. It was my words.

11:17 10 Q. The attitude loop commands attitude, doesn't  
11:17 11 it?

11:17 12 A. The attitude loop makes sure you're stable in  
11:17 13 the attitude direction. Yes.

11:17 14 Q. Sir, the attitude loop commands attitude,  
11:18 15 doesn't it?

11:18 16 A. Yeah.

11:18 17 Q. In DJI's product?

11:18 18 A. In any attitude loop, including DJI's  
11:18 19 products. The attitude loop helps you keep track of  
11:18 20 attitude.

11:18 21 Q. The attitude loop in DJI's product adjusts  
11:18 22 pitch attitude, doesn't it?

11:18 23 A. Yes.

11:18 24 Q. Now, even though you're arguing that DJI  
11:18 25 doesn't infringe this pitch attitude element, one of

11:18 1 the source code modules that DJI did not give us is  
11:18 2 called the "attitude sensing determination module,"  
11:18 3 right?

11:18 4 A. Okay.

11:18 5 Q. Right?

11:18 6 A. Yes. That's the name of a piece of code.

11:18 7 Q. You talked some about Claim 1 of the '752  
11:18 8 patent.

11:18 9 Do you remember that?

11:18 10 A. Not very clearly, but you can refresh me.

11:18 11 Q. You understand that Textron is asserting  
11:18 12 Claim 13 of the '752 patent, right?

11:18 13 A. Correct.

11:18 14 Q. Not Claim 1 of the '752 patent that you  
11:19 15 pointed to?

11:19 16 A. Correct.

11:19 17 Q. You understand that the title of the '752  
11:19 18 patent is "Flight Control Laws for Automatic Hover  
11:19 19 Hold," right?

11:19 20 A. Yes.

11:19 21 Q. You understand that a patent claim can cover a  
11:19 22 feature without actually reciting the tokenized name of  
11:19 23 the feature, right?

11:19 24 A. Sure.

11:19 25 Q. For example, let's say I had a claim that

11:19 1 covered the boundaries of Apple's FaceTime feature, but  
11:19 2 my claim didn't say the words "FaceTime," okay?

11:19 3 A. Correct.

11:19 4 Q. My claim instead said do a voice call with  
11:19 5 volume, okay?

11:19 6 A. Okay.

11:19 7 Q. My claim does not actually have to use the  
11:19 8 words "FaceTime" to cover the boundaries of FaceTime,  
11:19 9 right?

11:19 10 A. That's right.

11:19 11 Q. So to clear up any confusion here, the jury,  
11:19 12 when it does its deliberations, will have to compare  
11:19 13 the boundaries of Claim 13 of the '752 patent to DJI's  
11:19 14 drones to determine infringement?

11:19 15 A. Exactly.

11:20 16 MR. RICH: Can I have Dr. Nourbakhsh's  
11:20 17 slide at -- 70?

11:20 18 BY MR. RICH:

11:20 19 Q. Moving on to the '909 patent, Doctor.  
11:21 20 Yesterday you testified and today, I think, again I  
11:21 21 heard you testify over and over again about closing and  
11:21 22 landing on a boat, right?

11:21 23 A. Yes.

11:21 24 Q. Claim 1 of the '909 patent is not limited to a  
11:21 25 boat, is it?

11:21 1 A. Not limited to a boat. No.

11:21 2 Q. Claim 1 of the '909 patent is not limited to

11:21 3 closure, is it?

11:21 4 A. It's not limited to that. No.

11:21 5 Q. And, in fact, there's no boat recited in

11:21 6 Claim 1, is there?

11:21 7 A. There is no word "boat" in Claim 1.

11:21 8 Q. Right. Mr. Harris broadly used the word

11:21 9 "reference vehicle," correct?

11:21 10 A. In Claim 1, it says reference vehicle. Yeah.

11:21 11 Q. And you heard Mr. Harris testify that he did

11:21 12 not limit his invention to landing on a boat, correct?

11:21 13 A. That's right.

11:21 14 Q. All right.

11:21 15 MR. RICH: Let's look at Claim 1 of the

11:22 16 '909 patent.

11:22 17 If we could highlight "calculating a

11:22 18 calculated velocity of the aircraft relative to the

11:22 19 reference vehicle," please?

11:22 20 BY MR. RICH:

11:22 21 Q. Okay. Do you see that element, Doctor?

11:22 22 A. I do.

11:22 23 Q. When you were interpreting that element, you

11:22 24 read that to mean the act of calculating a relative

11:22 25 velocity where, in mathematics, you do that by

11:22 1 subtracting two velocities to get a differential; is  
11:22 2 that right?

11:22 3 A. Yes.

11:22 4 Q. You based your noninfringement opinion on that  
11:22 5 interpretation, didn't you?

11:22 6 A. There's many bases for the noninfringement  
11:23 7 opinion, but that's certainly an interpretation I used  
11:23 8 for that part. Yes.

11:23 9 Q. Sir, that's the interpretation you used when  
11:23 10 you were looking at whether DJI's drones calculate a  
11:23 11 calculated velocity, correct?

11:23 12 A. Yes.

11:23 13 Q. But the words of the claim don't say subtract  
11:23 14 one velocity from another to get a differential,  
11:23 15 correct?

11:23 16 A. You want me to answer the question, is the  
11:23 17 word "subtract" in that phrase?

11:23 18 Q. Sir, I asked: The words of the claim don't  
11:23 19 say, subtract one velocity from another to get a  
11:23 20 differential, correct?

11:23 21 A. No. They don't say "subtract one velocity  
11:23 22 from another to get a differential."

11:23 23 Q. In Follow Me, DJI's drones will calculate the  
11:23 24 velocity of the object that's being followed, correct?

11:23 25 A. Yes.

11:23 1 Q. The velocity of the reference vehicle is set  
11:23 2 to the value of a variable in DJI's code, right?

11:24 3 A. Sure.

11:24 4 Q. In ActiveTrack mode, DJI's drone will also  
11:24 5 calculate the velocity of the reference vehicle, won't  
11:24 6 it?

11:24 7 A. Yes.

11:24 8 Q. And DJI's code will also set the value of the  
11:24 9 velocity of the reference vehicle, correct?

11:24 10 A. Yes.

11:24 11 Q. DJI's drone will then calculate a velocity for  
11:24 12 the drone to fly at in ActiveTrack mode, right?

11:24 13 A. Sure.

11:24 14 Q. DJI's drones will compute the velocity of the  
11:24 15 drone needed to move it to maintain a stable distance  
11:24 16 from the target at all times, correct?

11:24 17 A. Yes.

11:24 18 Q. Can you see this okay, Doctor? Can you see  
11:25 19 the --

11:25 20 MR. RICH: Oh, I need to publish that.

11:25 21 There we go.

11:25 22 MR. SCHLESINGER: Your Honor, may we seal  
11:25 23 the courtroom?

11:25 24 THE COURT: Sure.

11:25 25 If you're not under the protective order,

11:25 1 please exit.

11:25 2 MR. RICH: Thank you.

11:25 3 (Sealed proceedings.)

11:25 4 BY MR. RICH:

11:26 5 Q. All right, Doctor. Can you see this okay?

11:26 6 A. I can.

11:26 7 Q. And this is the slide where Dr. Michalson  
11:26 8 showed some ActiveTrack code, right?

11:26 9 A. Yes.

11:26 10 Q. And you put this up yesterday, right?

11:26 11 A. I did.

11:26 12 Q. And you talked about how this isn't about  
11:26 13 velocity, right?

11:26 14 A. Right.

11:26 15 [REDACTED]

11:26 16 [REDACTED]

11:26 17 Q. That's at Line 5532?

11:26 18 A. Yes.

11:26 19 [REDACTED]

11:26 20 [REDACTED]

11:26 21 [REDACTED]

11:26 22 [REDACTED] [REDACTED]

11:26 23 [REDACTED]

11:26 24 [REDACTED]

11:26 25 [REDACTED]

11:26 1 [REDACTED] [REDACTED]  
11:26 2 [REDACTED] [REDACTED]  
11:26 3 [REDACTED] [REDACTED]  
11:26 4 [REDACTED] [REDACTED]  
11:26 5 Q. Now, you were in the courtroom for  
11:27 6 Dr. Michalson's examination, right?  
11:27 7 A. Yes. I was.  
11:27 8 Q. And you saw him put up a slide showing  
11:27 9 differences between Claim 1 and Claim 7 of the '909  
11:27 10 patent?  
11:27 11 A. I remember that.  
11:27 12 Q. Now, you agree that Claim 1 recites a  
11:27 13 calculation of calculated velocity, correct?  
11:27 14 A. Yes.  
11:27 15 Q. And Claim 1 isn't the claim that requires a  
11:27 16 calculation of position relative to the reference  
11:27 17 vehicle, correct?  
11:27 18 A. Correct.  
11:27 19 Q. One of the main differences between Claims 1  
11:27 20 and 7 is that Claim 7 requires a calculation of  
11:27 21 position relative to the reference vehicle, correct?  
11:27 22 A. Yes. It adds that.  
11:27 23 Q. And do you agree that Follow Me meets the  
11:27 24 element of calculation of a position of the aircraft  
11:28 25 relative to the reference vehicle as recited in

11:28 1 Claim 7?

11:28 2 A. The specific part, yes.

11:28 3 Q. And do you agree that ActiveTrack meets the  
11:28 4 element in Claim 7 of a calculation of a position of  
11:28 5 the aircraft relative to the reference vehicle, right?

11:28 6 A. Again, that specific part. Sure.

11:28 7 Q. You talked some about the '909 patent claim  
11:28 8 element reference data communicating position and  
11:28 9 movement.

11:28 10 Do you remember that?

11:28 11 A. I do.

11:28 12 Q. And in Follow Me mode, a drone receives GPS  
11:28 13 data that tells it the position of the reference  
11:28 14 vehicle, right?

11:28 15 A. Yes, sir.

11:28 16 Q. And the drone will continue to receive the GPS  
11:28 17 of the reference vehicle very rapidly, right?

11:28 18 A. It does.

11:28 19 Q. [REDACTED]

11:28 20 [REDACTED]

11:29 21 [REDACTED] [REDACTED] [REDACTED]

11:29 22 [REDACTED] [REDACTED]

11:29 23 [REDACTED] [REDACTED]

11:29 24 [REDACTED] [REDACTED]

11:29 25 [REDACTED]

11:29 1 Q. In ActiveTrack, the drone is configured to  
11:29 2 receive bounding box coordinate data, right?

11:29 3 A. Correct.

11:29 4 Q. The drone uses that data to determine the  
11:29 5 position of the target, right?

11:29 6 A. That's right.

11:29 7 Q. The drone uses that data to estimate the  
11:29 8 movement of the target?

11:29 9 A. What data?

11:29 10 Q. The received data.

11:29 11 A. Oh, the position. Yeah. The drone looks at  
11:29 12 me as I move and figures out from its camera how I'm  
11:29 13 moving. That's right.

11:29 14 Q. Sir, the drone uses the bounding box  
11:29 15 coordinate data to estimate the movement of the target?

11:29 16 A. The first thing you said, sir. It's to  
11:29 17 estimate the position of the target.

11:29 18 Q. Sir, I took your deposition in this case,  
11:29 19 didn't I?

11:30 20 A. Yes.

11:30 21 Q. And on January 25th of 2023 at Page 129,  
11:30 22 Lines 4 through 8 of your transcript, I asked you: The  
11:30 23 drone uses the bounding box coordinate data to estimate  
11:30 24 the movement of the target, correct?

11:30 25 A. Yes.

11:30 1 Q. And you said: Yes, over time.

11:30 2 Did I ask that question and did you give that

11:30 3 answer?

11:30 4 A. That's accurate.

11:30 5 MR. RICH: Let's pull up the words of

11:30 6 Claim 1 again.

11:30 7 (Clarification by Reporter.)

11:30 8 MR. RICH: I believe we can go off the

11:30 9 sealed record.

11:30 10 THE COURT: Okay.

09:42 11 (Sealed proceedings end.)

11:30 12 MR. RICH: Now, can we -- let me get that

11:30 13 started.

11:30 14 Can we zoom in on "reference data

11:31 15 communicating a position and movement of a reference

11:31 16 vehicle," please, and the receiver element?

11:31 17 Thank you.

11:31 18 BY MR. RICH:

11:31 19 Q. Can you see that okay, Doctor?

11:31 20 A. Oh, I sure can.

11:31 21 Q. The claim says: Reference data communicating

11:31 22 a position and movement of a reference vehicle.

11:31 23 You see that, right?

11:31 24 A. I do.

11:31 25 Q. The claim doesn't say position data and

11:32 1 movement data separately communicated, correct?

11:32 2 A. The words "separately communicated" is, I  
11:32 3 think, what you just added, and it's not in the  
11:32 4 dependent claim, no.

11:32 5 Q. Right. The claim says: Reference data that  
11:32 6 communicates position and movement, right?

11:32 7 A. Communicating. Yeah.

11:32 8 Q. There's not a limitation that says communicate  
11:32 9 both things at once, right?

11:32 10 A. It doesn't say at once --

11:32 11 Q. Sorry.

12 A. -- no.

13 Q. Strike that.

11:32 14 There's not a limitation in there that says  
11:32 15 don't use position information to also give you  
11:32 16 movement, correct?

11:32 17 A. Doesn't have that language.

11:32 18 Q. You heard Mr. Harris testify earlier, right?

11:32 19 A. I did.

11:32 20 Q. You heard him testify that his invention could  
11:32 21 communicate data indicating position and movement with  
11:32 22 just GPS, right?

11:32 23 A. Yes. His invention can.

11:32 24 Q. Now, you talked about something called  
11:32 25 noninfringing alternatives for the '752 patent, didn't

11:32 1 you?

11:32 2 A. I remember that.

11:32 3 Q. Those are hypothetical designs you say DJI  
11:33 4 could come up with, right?

11:33 5 A. Yes. Could have come up with, yeah.

11:33 6 Q. Could have, as in could have at the date of  
11:33 7 first infringement in 2015?

11:33 8 A. That's right.

11:33 9 Q. And, in fact, you came up with those  
11:33 10 alternatives just for the purposes of this litigation,  
11:33 11 didn't you?

11:33 12 A. I was considering what they could have done  
11:33 13 that would have avoided this whole situation.

11:33 14 Q. One of the requirements for a noninfringing  
11:33 15 alternative is that the alternative has to be  
11:33 16 acceptable to consumers, right?

11:33 17 A. Yes.

11:33 18 Q. One of the ways that you say DJI could  
11:33 19 hypothetically change its product is you add a brake  
11:33 20 button to DJI's remote controllers, and the user hits  
11:33 21 that brake button to trigger a hover, right?

11:33 22 A. Yes. That's right. Well, yeah. You can call  
11:34 23 it --

11:34 24 Q. Until the user --

11:34 25 A. -- to trigger braking, but yes.

11:34 1 Q. Until the user hits the added brake button in  
11:34 2 your hypothetical design, the drone just continues to  
11:34 3 either drift or fly, right?

11:34 4 A. It coasts.

11:34 5 Q. Coasts.

11:34 6 A. Yeah.

11:34 7 Q. In other words, the drone won't come to a  
11:34 8 hover when the user releases the stick like it does  
11:34 9 now?

11:34 10 A. Right. It'll coast until you hit the brake  
11:34 11 like a car would coast.

11:34 12 Q. It'll keep moving, right?

11:34 13 A. That's right.

11:34 14 Q. And the way you have to trigger it to brake in  
11:34 15 your hypothetical is add the button, right?

11:34 16 A. Yeah. You have to have a brake pedal.

11:34 17 Q. And you say triggering a hover by hitting a  
11:34 18 new button instead of releasing the stick would be  
11:34 19 perfectly acceptable to consumers, right?

11:34 20 A. I think so.

11:34 21 Q. When you were tasked with determining if your  
11:34 22 alternative would be acceptable to consumers, you  
11:34 23 didn't go out and check with a single consumer to see  
11:34 24 if that alternative would work for them, did you?

11:35 25 A. Did I survey consumers? No.

11:35 1 Q. Sir, I asked did you talk to a single consumer  
11:35 2 to see if your alternative would be acceptable?

11:35 3 A. No.

11:35 4 Q. You didn't ask a single consumer if they'd be  
11:35 5 happy if you took away triggering a hover using a  
11:35 6 centered stick position, right?

11:35 7 A. Correct.

11:35 8 Q. And you know that they've used that  
11:35 9 functionality for 11 years, correct?

11:35 10 A. They have.

11:35 11 Q. They've been used to centering a stick to  
11:35 12 create a hover for 11 years?

11:35 13 A. Like people who used it for 11 years, sure.

11:35 14 Q. And then you're suddenly just going to take  
11:35 15 that operation away from them, right?

11:35 16 A. From people who've used it for 11 years?

11:35 17 Q. Yes.

11:35 18 A. I'm giving an alternative, what you could have  
11:35 19 done instead. Yeah.

11:35 20 Q. But you're saying that taking it away, the  
11:35 21 behavior that they are used to and have used for  
11:36 22 11 years, would be perfectly acceptable to them?

11:36 23 A. Well, I'm guessing a lot of them drive cars,  
11:36 24 and so I believe they'll find it acceptable. Yeah.

11:36 25 MR. RICH: Objection, nonresponsive.

11:36 1 THE COURT: Sustained.

11:36 2 BY MR. RICH:

11:36 3 Q. Sir --

11:36 4 A. Yes.

11:36 5 Q. -- you're telling the jury that consumers who  
11:36 6 have used a feature for 11 years and they're used to  
11:36 7 that use would be perfectly fine if you totally change  
11:36 8 the product and remove the thing they're used to?

11:36 9 A. Yes. And I can explain, if you'd like me to.

11:36 10 Q. And you didn't do any consumer surveys, right?

11:36 11 A. That's correct.

11:36 12 Q. You didn't ask anyone to do a consumer survey,  
11:36 13 correct?

11:36 14 A. I didn't ask anybody to do consumer surveys.

11:36 15 Q. And you didn't even do any market research,  
11:36 16 right?

11:36 17 A. No. I didn't do market research on brake  
11:36 18 pedals or anything like that.

11:36 19 Q. Now, I've been going to the same Tex-Mex place  
11:36 20 in Dallas for about ten years, okay?

11:37 21 A. I believe it.

11:37 22 Q. And I go there because I love their queso,  
11:37 23 okay?

11:37 24 A. All right.

11:37 25 Q. Let's say that one day they totally change

11:37 1 their menu and take my queso, my favorite queso, off  
11:37 2 the menu, okay?

11:37 3 A. I'm sorry.

11:37 4 Q. Me too. But you wouldn't be surprised to know  
11:37 5 that I probably am not going back there because my  
11:37 6 queso is no longer there.

11:37 7 A. Depends on how their new stuff tastes.

11:37 8 Q. That kind of sounds like what you're saying  
11:37 9 DJI would do. They would take the normal operation and  
11:37 10 totally change it, you agree?

11:37 11 A. I agree that it's an alternative design. Yes.  
11:37 12 Different queso.

11:37 13 Q. You also talked about how easy it would be for  
11:37 14 DJI to add the new brake button you're proposing,  
11:37 15 right?

11:37 16 A. Yes.

11:37 17 Q. Well, let me step back a little bit.

11:37 18 We talked about how under your hypothetical  
11:37 19 the drone would continue to drift, right?

11:37 20 A. It would coast. Yeah.

11:37 21 Q. And when you're saying coasting, it's still  
11:38 22 coasting -- it's moving, right? Unless you hit that  
11:38 23 button?

11:38 24 A. Yeah. It's what you think of as zero-pitch  
11:38 25 motion. So what happens is it stops trying to push

11:38 1 itself forward. It just coasts, and that'll cause it  
11:38 2 to gradually slow down.

11:38 3 I'm sorry. That's the wrong answer. Yes.

11:38 4 Q. Well, let's say I accidentally -- under your  
11:38 5 hypothetical, let's say I accidentally drop the  
11:38 6 controller on the ground, okay?

11:38 7 A. Okay.

11:38 8 Q. Now, with the normal operation where the  
11:38 9 sticks create the hover, the drone will come to a hover  
11:38 10 and stop, right?

11:38 11 A. I hope so. I mean, if you break the  
11:38 12 controller, I have no idea what'll happen if it hits  
11:38 13 the ground and breaks. Let's say you just let go of it  
11:38 14 gently.

11:38 15 Q. Sir, if you drop the controller under the  
11:38 16 normal operation and the sticks are centered, it's  
11:38 17 going to come to a hover?

11:38 18 A. Yes.

11:38 19 Q. Now, if I drop it under your hypothetical and  
11:38 20 I haven't hit your new button, the drone just continues  
11:39 21 to go, doesn't it?

11:39 22 A. It coasts. Yeah.

11:39 23 Q. And my \$3,000 DJI drone is coasting right at  
11:39 24 my house, isn't it?

11:39 25 A. It's running obstacle avoidance so it's not

11:39 1 going to hit the house. Right.

11:39 2 Q. Sir, the drone will continue to drift towards  
11:39 3 my house, won't it?

11:39 4 A. Sure.

11:39 5 Q. That isn't going to end too well for the drone  
11:39 6 with your new brake button, is it?

11:39 7 A. I disagree.

11:39 8 Q. But the fact is, sir, you talked about how DJI  
11:39 9 could have avoided this whole thing just a minute ago.

11:39 10 But they never changed their product, did  
11:39 11 they?

11:39 12 A. Can you ask that in a different way?

11:39 13 Q. Sir, DJI never implemented your proposed  
11:39 14 alternative of adding a brake button, right?

11:39 15 A. Well, I've flown a really recent FPV drone  
11:40 16 from DJI that has a brake button. So there is such a  
11:40 17 thing as a brake button today.

11:40 18 Q. Sir, DJI hasn't actually implemented your  
11:40 19 alternative, has it?

11:40 20 A. Not at the time of my deposition with you.

11:40 21 Q. Exactly. You told me that DJI hasn't  
11:40 22 implemented a brake button?

11:40 23 A. Right.

11:40 24 Q. And you're supposed to be analyzing the  
11:40 25 alternatives as of 2015, correct?

11:40 1 A. Okay.

11:40 2 Q. Correct?

11:40 3 A. Yes.

11:40 4 Q. And so this brand new, one product with the

11:40 5 brake button wasn't available back then?

11:40 6 A. Correct.

11:40 7 Q. You understand the standard of proof for

11:40 8 infringement, right?

11:40 9 A. Yes.

11:40 10 Q. It's a preponderance of the evidence, right?

11:40 11 A. Correct.

11:40 12 Q. That's more likely than not, right?

11:40 13 A. Yes.

11:40 14 Q. Now, DJI has to prove invalidity under a

11:40 15 different standard, right?

11:40 16 A. Yes.

11:40 17 Q. Mr. Harris and Mr. Christensen's patents are

11:41 18 presumed valid, aren't they?

11:41 19 A. Yes.

11:41 20 Q. You agree that DJI has the burden to overcome

11:41 21 that presumption of validity, right?

11:41 22 A. That's right.

11:41 23 Q. Now, because patents are presumed valid,

11:41 24 there's a higher standard for taking away a patent than

11:41 25 for establishing infringement.

11:41 1 You understand that?

11:41 2 A. That's correct.

11:41 3 Q. And do you understand that the standard for  
11:41 4 taking away a patent is called clear and convincing  
11:41 5 evidence?

11:41 6 A. Yes.

11:41 7 Q. I didn't hear you mention to the jury that  
11:41 8 patents are presumed valid, did you?

11:41 9 A. If I forgot to say that -- I don't remember  
11:41 10 mentioning it one way or the other.

11:41 11 Q. You also didn't mention that you have -- DJI  
11:41 12 has to prove invalidity by clear and convincing  
11:41 13 evidence.

11:41 14 You didn't tell them that, did you?

11:41 15 A. I didn't say that phrase to them.

11:41 16 Q. That's kind of important information to have,  
11:41 17 isn't it?

11:41 18 A. Well, I thought they were going to get that in  
11:41 19 the Judge's orders.

11:41 20 Q. And that's the standard that you had to apply  
11:41 21 when you were doing your invalidity analysis?

11:41 22 A. Yes.

11:41 23 Q. You're saying that the Frink reference  
11:42 24 anticipates Mr. Harris' '909 patent, right?

11:42 25 A. That's right.

11:42 1 Q. You understand that anticipation is a  
11:42 2 stringent standard, right?

11:42 3 A. I do.

11:42 4 Q. If even a single limitation is not disclosed  
11:42 5 in Frink, then Frink can't anticipate, right?

11:42 6 A. That's right.

11:42 7 Q. Obviousness is different than anticipation,  
11:42 8 right?

11:42 9 A. It is.

11:42 10 Q. You use obviousness when the reference that  
11:42 11 you're relying on doesn't actually teach all the  
11:42 12 elements of the claim?

11:42 13 A. Well, my understanding may be not perfect  
11:42 14 about legal matters. I don't know if you want me to  
11:42 15 say this if -- or if I'm going to get in trouble.

11:42 16 Can I talk about the relationship between  
11:42 17 obviousness and anticipation or do you want me to avoid  
11:42 18 that?

11:42 19 Q. Well, you told the jury that the Gold  
11:42 20 reference makes Mr. Christensen's '752 patent obvious,  
11:42 21 right?

11:42 22 A. Yes.

11:42 23 Q. Now, as part of obviousness, DJI has to show  
11:43 24 that one of ordinary skill would have been motivated to  
11:43 25 combine things together, right?

11:43 1 A. And able. Yeah.

11:43 2 Q. You can't just take two pieces of prior art  
11:43 3 and smash them together, can you?

11:43 4 A. Again, I don't know how to answer. We're not  
11:43 5 talking about two pieces of prior art. We're talking  
11:43 6 about one piece of prior art, the Gold reference.

11:43 7 Q. And you're using obviousness, right?

11:43 8 A. That's right.

11:43 9 Q. And so you're acknowledging that something  
11:43 10 isn't in Gold, aren't you?

11:43 11 A. I'm acknowledging that somebody skilled in the  
11:43 12 arts would be able to take Gold -- I apologize if I'm  
11:43 13 giving a long answer -- and come up with the invention  
11:43 14 that '752 is.

11:43 15 Q. Is it your opinion that Gold anticipates or  
11:43 16 renders obvious Claim 13?

11:43 17 A. Renders obvious.

11:43 18 Q. So something is missing from Gold. It's not  
11:44 19 anticipated, right?

11:44 20 A. As you pointed out, anticipate is a more  
11:44 21 stringent standard.

11:44 22 Q. And so you're acknowledging that something is  
11:44 23 not in Gold because you agree that it's not  
11:44 24 anticipating?

11:44 25 A. Would you like me to explain?

11:44 1 Q. I would like an answer, sir.

11:44 2 A. Okay.

11:44 3 Q. Let me ask my question again, sir.

11:44 4 A. Sure.

11:44 5 Q. You -- I believe you just said that Gold  
11:44 6 doesn't anticipate Claim 13, right?

11:44 7 A. Right.

11:44 8 Q. And so since it's not anticipation, that means  
11:44 9 that an element is missing in Gold?

11:44 10 A. It means I use obviousness to overcome that.

11:44 11 Yes.

11:44 12 So yes. It means there's something where I  
11:44 13 want obviousness instead of anticipation. And I can  
11:44 14 explain if you want.

11:44 15 MR. RICH: I'll object as nonresponsive.

11:44 16 THE COURT: Sustained.

11:44 17 BY MR. RICH:

11:44 18 Q. Sir --

11:44 19 MR. RICH: Let's move on to Slide 117 at  
11:45 20 Dr. Nourbakhsh's presentation, please.

11:45 21 BY MR. RICH:

11:45 22 Q. All right. You see on the right side of the  
11:45 23 slide you have Claim 13 here?

11:45 24 A. I do.

11:45 25 Q. And do you see the claim element that the

11:45 1 lateral speed hold loop automatically -- well, the  
11:45 2 speed hold loop automatically engages, right?

11:45 3 A. The forward -- yeah. Forward.

11:45 4 Q. Correct. Correct.

11:45 5 Claim says the loop automatically engages,  
11:45 6 right?

11:45 7 A. That's right.

11:45 8 Q. All right. Now it should be displayed.

11:45 9 Claim says automatically engages, right?

11:45 10 A. That's right.

11:45 11 Q. Manually pressing a button to engage the  
11:46 12 longitudinal or lateral speed hold loops would not be  
11:46 13 automatically engaging those loops as recited in  
11:46 14 Claim 13?

11:46 15 A. That's right.

11:46 16 Q. Now, you told the jury that Gold discloses  
11:46 17 that the lateral speed hold loop is automatically  
11:46 18 engaged, right?

11:46 19 A. That's right.

11:46 20 Q. And what you pointed to was this box on the  
11:46 21 left that references a pitch --

11:46 22 MR. RICH: Well, can we have the next  
11:46 23 slide, please?

11:46 24 There we go.

11:46 25 BY MR. RICH:

11:46 1 Q. You pointed to this on the left that has the  
11:46 2 roll axis, right?

11:46 3 A. That's right.

11:46 4 Q. Now, that velocity hold that you're pointing  
11:46 5 to on the left happens after the velocity stabilization  
11:46 6 mode is engaged, correct?

11:46 7 A. It happens when you let go of the stick,  
11:47 8 correct?

11:47 9 Q. Well, the velocity stabilization has to be  
11:47 10 engaged first before you can get into the velocity  
11:47 11 hold, right?

11:47 12 A. Yeah. All -- the autopilot has to be on when  
11:47 13 you're flying the helicopter for any of this to  
11:47 14 function. That's right.

11:47 15 Q. Right. For any of the things that you're  
11:47 16 pointing to, to function, autopilot has to be on first?

11:47 17 A. Yeah. When you take off with the helicopter,  
11:47 18 you've got to turn that on.

11:47 19 Q. Now, you didn't actually show the jury the  
11:47 20 full context of this Gold reference, did you?

11:47 21 A. I'm not sure what you mean. I didn't show  
11:47 22 them the entire article, no.

11:47 23 MR. RICH: Can we have Defendants'  
11:47 24 Exhibit 396, please?

11:47 25 Go to Page 421, please. And just under

11:47 1 "Velocity Stabilization/Hover Hold" on the left-hand  
11:47 2 side.

11:47 3 BY MR. RICH:

11:47 4 Q. Okay. The velocity stabilization mode and  
11:48 5 hover hold mode.

11:48 6 Do you see that?

11:48 7 A. I do.

11:48 8 Q. This is the part that you didn't show the  
11:48 9 jury, right?

11:48 10 A. I talked about it. I didn't show them this  
11:48 11 text. Right.

11:48 12 Q. All right. What's the --

11:48 13 MR. RICH: Can I have highlighting on the  
11:48 14 first sentence, please?

11:48 15 BY MR. RICH:

11:48 16 Q. Sir, the velocity stabilization mode is  
11:48 17 engaged manually by pressing the velocity hover hold  
11:48 18 switch.

11:48 19 Do you see that?

11:48 20 A. I do.

11:48 21 Q. And so you have to hit a button to engage  
11:48 22 velocity stabilization mode, right?

11:48 23 A. Yeah. That's the button that turns on the  
11:48 24 whole autopilot system.

11:48 25 Q. Right. And without hitting that button, you

11:48 1 can't engage any of the stuff that you pointed to?

11:48 2 A. Yeah. If you don't turn on autopilot, none of  
11:48 3 these cool functions function. It's just a manual  
11:48 4 helicopter.

11:48 5 MR. RICH: Objection, nonresponsive.

11:48 6 THE COURT: Sustained.

11:48 7 BY MR. RICH:

11:48 8 Q. Doctor, you have to first hit a button before  
11:48 9 any of the things that you pointed to are engaged,  
11:48 10 correct?

11:48 11 A. That's right.

11:49 12 MR. RICH: May I have Figure 1 of Gold,  
11:49 13 please?

11:49 14 BY MR. RICH:

11:49 15 Q. This is Figure 1 that you showed the jury,  
11:49 16 right?

11:49 17 A. Yes. It is.

11:49 18 Q. At the bottom it says "longitudinal control  
11:49 19 laws," right?

11:49 20 A. Yes. It does.

11:49 21 Q. And this is what you said teaches the  
11:49 22 longitudinal loop design in Claim 13, right?

11:49 23 A. Yes.

11:49 24 Q. You didn't show the jury any similar figure  
11:49 25 that talks about loops for the lateral loop design, did

11:49 1 you?

11:49 2 A. No. It would work the same way, of course.

11:49 3 But you're right. Okay. Yes to your question. No, I  
11:49 4 didn't show them another figure.

11:49 5 MR. RICH: Objection, nonresponsive.

11:49 6 THE COURT: Overruled.

11:49 7 BY MR. RICH:

11:49 8 Q. Sir, you didn't -- you did not show the jury  
11:49 9 any loops like this one in Figure 1 for the lateral  
11:50 10 loop design?

11:50 11 A. That's correct.

11:50 12 Q. And you didn't show the jury any loops like  
11:50 13 this one in Figure 1 for the directional loop design,  
11:50 14 correct?

11:50 15 A. That's correct.

11:50 16 Q. The bottom line, sir, is manual engagement is  
11:50 17 the opposite of automatic engagement, isn't it?

11:50 18 A. I disagree with your use of the word  
11:50 19 "engagement" twice because there are different things  
11:50 20 we're engaging. So I disagree.

11:50 21 Q. You disagree that manually pressing a button  
11:50 22 is the opposite of automatic engagement?

11:50 23 A. You're using the word "engagement" -- well,  
11:50 24 you said "pressing a button" this time. Manually  
11:50 25 pressing a button is completely different from letting

11:50 1 go of the stick.

11:50 2 MR. RICH: May I have the title of Gold,  
11:50 3 please, first page?

11:50 4 Can you blow up the title, please?

11:50 5 BY MR. RICH:

11:50 6 Q. You see the title, sir?

11:50 7 A. I do.

11:51 8 Q. It says "Selectable Control Modes"?

11:51 9 A. It does.

11:51 10 Q. Now, you talked some about how this came from  
11:51 11 Mr. Gold and a guy from Boeing.

11:51 12 Do you remember that?

11:51 13 A. I do.

11:51 14 Q. You didn't go talk to Mr. Gold about his  
11:51 15 selectable control modes, did you?

11:51 16 A. I didn't talk to Mr. Gold. I've never met the  
11:51 17 gentleman.

11:51 18 Q. And you didn't go talk to the other gentleman,  
11:51 19 Mr. Dryfoos, either, did you?

11:51 20 A. I've never met Mr. Dryfoos either.

11:51 21 Q. Did you know that this paper says it's the --  
11:51 22 gives the history of what happened?

11:51 23 A. You mean the Comanche project?

11:51 24 Q. The paper talks about how this is the  
11:51 25 preliminary design of the selectable modes, and it was

11:51 1 done at Sikorsky, right?

11:51 2 A. Yes.

11:51 3 Q. Pretty good aerospace company, right?

11:51 4 A. Sure.

11:51 5 Q. A lot of engineers there?

11:51 6 A. Yes.

11:51 7 Q. And then it talks about how there was some  
11:51 8 pilot evaluations at Sikorsky and the control laws got  
11:51 9 transferred to Boeing.

11:51 10 Do you see that?

11:51 11 A. Yes.

11:51 12 Q. Another pretty good aerospace company with a  
11:52 13 lot of engineers, right?

11:52 14 A. Absolutely.

11:52 15 Q. And then the final design went back to  
11:52 16 Sikorsky.

11:52 17 Did you see that?

11:52 18 A. Okay.

11:52 19 Q. And so after all this back and forth between  
11:52 20 Sikorsky and Boeing, all those good engineers only  
11:52 21 described in the Gold paper that you have to first hit  
11:52 22 a button before you can do all the things that you  
11:52 23 pointed to?

11:52 24 A. That's required in all aircraft, yeah.

11:52 25 Q. Now, let's quickly turn to the Frink

11:52 1 reference. This is the one that you're saying to the  
11:52 2 jury that they should use to take Mr. Harris' patent  
11:52 3 away, right?

11:52 4 A. No. I didn't say they should take his patent  
11:52 5 away. That's not fair.

11:52 6 Q. To be clear, sir, Mr. Frink is not Mr. Frank  
11:52 7 Wang at DJI, right? Two separate people?

11:52 8 A. I'm sorry?

11:52 9 Q. Mr. Frink is not Mr. Frank Wang at DJI, right?

11:52 10 A. I think the inventor's name is Bentley Frink.  
11:52 11 His last name is Frink, F-r-i-n-k.

11:52 12 Q. You understand that Claim 1 says you have to  
11:53 13 have a calculation of velocity of the aircraft relative  
11:53 14 to the reference vehicle, right?

11:53 15 A. I do.

11:53 16 Q. There has to be a calculation, right?

11:53 17 A. Yes.

11:53 18 MR. RICH: Can I have Dr. Nourbakhsh's  
11:53 19 Slide 88, please?

11:53 20 BY MR. RICH:

11:53 21 Q. All right, Doctor.

11:53 22 You told the jury that Frink -- the first line  
11:53 23 of Frink at -- in the center of this page.

11:53 24 Do you see that?

11:53 25 The unmanned aerial vehicle can be programmed

11:53 1 to fly in a pattern relative to the marine vessel.

11:53 2 You see that, right?

11:53 3 A. I do see that.

11:53 4 Q. That's two lines out of Frink, right?

11:53 5 A. Two lines of text, yes.

11:53 6 Q. Two lines of text.

11:53 7 And you told the jury that Frink teaches  
11:53 8 calculating a calculated velocity of the aircraft  
11:53 9 relative to the reference vehicle based on those two  
11:54 10 lines because it's programmed to fly in a pattern,  
11:54 11 right?

11:54 12 A. I think there's a whole lot of places where  
11:54 13 Frink talks about the oval pattern. It's not just  
11:54 14 those two lines. That's not fair.

11:54 15 Q. But what you're pointing to is a pattern,  
11:54 16 correct?

11:54 17 A. I'm using a pattern, yes.

11:54 18 Q. And the two lines that you pointed to on this  
11:54 19 slide for the calculation, the word "calculate" does  
11:54 20 not appear, does it?

11:54 21 A. No. The word "calculate" is not in that  
11:54 22 sentence.

11:54 23 Q. In those two lines that you're relying on, the  
11:54 24 word "calculation" does not appear, correct?

11:54 25 A. Neither of those two words is in that

11:54 1 sentence.

11:54 2 Q. In those two sentences that you're pointing  
11:54 3 to -- or that one sentence that you're pointing to, the  
11:54 4 word "velocity" does not appear, right?

11:54 5 A. That sentence doesn't have the word  
11:54 6 "velocity," correct.

11:54 7 Q. And now, you remember Claim 7 of the '909  
11:54 8 patent. It talks about calculating position, right?

11:54 9 A. That's right.

11:54 10 Q. And so in the lines that you're relying on  
11:54 11 here on this slide, those lines don't say calculate a  
11:55 12 position, do they?

11:55 13 A. The word "calculated position" isn't in this  
11:55 14 sentence.

11:55 15 Q. Frink mentions in that line programming,  
11:55 16 right?

11:55 17 A. That sentence doesn't have the word -- oh,  
11:55 18 programmed, yes. It has the word "programmed."

11:55 19 Q. Doesn't say the word "calculation," right?

11:55 20 A. That's right. The word "calculation" is still  
11:55 21 not in that sentence.

11:55 22 Q. Sir, patents are important property rights,  
11:55 23 aren't they?

11:55 24 A. Absolutely.

11:55 25 Q. Protecting your patents in court is sometimes

11:55 1 necessary, right?

11:55 2 A. I think so.

11:55 3 Q. Patents are so important that the whole basis  
11:55 4 for them is in the Constitution, right?

11:55 5 A. That's right.

11:55 6 Q. Now, I want to end close to where we started,  
11:55 7 sir. You remember where we began this  
11:55 8 cross-examination with the DJI patents?

11:55 9 A. Yes.

11:55 10 Q. We started with all those DJI patents that  
11:55 11 you're not saying invalidate Mr. Harris' and  
11:55 12 Mr. Christensen's patents?

11:55 13 A. That's right.

11:55 14 Q. And you've said you found those doing a Google  
11:56 15 search, didn't you?

11:56 16 A. I did.

11:56 17 Q. Probably took you about a minute to look up  
11:56 18 those patents, right?

11:56 19 A. I think it took a lot longer than a minute,  
11:56 20 but yes.

11:56 21 Q. You did a --

11:56 22 A. Took some time, let's say.

11:56 23 Q. You did an assignee search for DJI, right?

11:56 24 A. I did an assignee search for DJI, then I  
11:56 25 questioned the number. So I tried it various ways

11:56 1 trying to figure out why am I getting such a huge  
11:56 2 number of hits.

11:56 3 MR. RICH: Objection, nonresponsive.

11:56 4 THE COURT: Overruled.

11:56 5 BY MR. RICH:

11:56 6 Q. Sir, you were in the courtroom when we played  
11:56 7 the depositions of all those DJI engineers that aren't  
11:56 8 here, correct?

11:56 9 A. I was.

11:56 10 Q. And you heard that not a single one of them  
11:56 11 Googled Textron's patents, correct?

11:56 12 A. That's right. They say that -- they said they  
11:56 13 hadn't read the patent.

11:56 14 Q. Doctor, I think I'm missing somebody here.

11:56 15 There's no Mr. Wang in this courtroom, is  
11:56 16 there?

11:56 17 A. I don't know what he looks like, but I'm  
11:56 18 pretty sure you're right. He's not in here.

11:56 19 Q. Thank you.

11:57 20 THE COURT: Why don't we take our lunch  
11:57 21 break, unless it's very short?

11:57 22 MR. SCHLESINGER: It'll be a couple of  
11:57 23 minutes.

11:57 24 THE COURT: No. Let's go ahead then.

11:57 25 Let me ask you all: Do y'all want to

11:57 1 wrap this gentleman up or do you want to go to lunch?

11:57 2 I'm happy to do either.

11:57 3 JURY: Wrap it up.

11:57 4 THE COURT: Okay. Very good.

5 Please.

11:57 6 THE WITNESS: Wrap it up.

11:57 7 REDIRECT EXAMINATION

11:57 8 BY MR. SCHLESINGER:

11:57 9 Q. Dr. Nourbakhsh, I want to start with some of  
11:57 10 the questions you were initially asked about.

11:57 11 And I want to be very clear: What you get  
11:57 12 paid, does that depend on whether DJI wins or loses?

11:57 13 A. No.

11:57 14 Q. Do you offer any opinions you don't agree  
11:57 15 with?

11:57 16 A. Never.

11:57 17 Q. Whose opinions are you offering?

11:57 18 A. My own.

11:57 19 Q. And you understand Textron's who filed this  
11:57 20 lawsuit and that's why we're here?

11:57 21 A. Of course. Yes.

11:57 22 Q. Would you be surprised to know or learn that  
11:58 23 Textron choose who they deposed?

11:58 24 A. No. That's not surprising to me.

11:58 25 Q. Would you be surprised to know that Textron

11:58 1 never asked to talk to Mr. Frink?

11:58 2 A. I'm a little surprised.

11:58 3 Q. You have a drone right there with you, and you  
11:58 4 have the remote control.

11:58 5 Can you please hold both of those?

11:58 6 A. Sure.

11:58 7 Q. Which one's the aircraft?

11:58 8 A. That's the aircraft.

11:58 9 Q. Does it have any controllers?

11:58 10 A. No.

11:58 11 Q. You were also asked about missing code that  
11:58 12 you explained yesterday -- or earlier where it's  
11:58 13 irrelevant.

11:58 14 Do you recall that?

11:58 15 A. Yes.

11:58 16 Q. Now, there are a lot of claims counsel was  
11:58 17 saying what the code was about.

11:58 18 Has the other counsel seen the code?

11:58 19 A. No.

11:58 20 Q. Have you?

11:58 21 A. No.

11:58 22 Q. How much code did you review?

11:58 23 A. I counted the lines and it sounds insane.

11:59 24 It's a little bit more than 2 million lines of code.

11:59 25 That's not the missing code. That's the code that we

11:59 1 all saw and read and used.

11:59 2 Q. Is that the same code that Textron and  
11:59 3 Dr. Michalson had access to?

11:59 4 A. Yes.

11:59 5 Q. Or Textron's counsel?

11:59 6 Now, did counsel show you what the application  
11:59 7 that he's referring to actually stated?

11:59 8 A. No.

11:59 9 Q. Let's look at that.

11:59 10 MR. SCHLESINGER: Could we pull up  
11:59 11 Plaintiff's Exhibit 106?

11:59 12 And if we could go to page -- I believe  
11:59 13 it's Page 8, and let's look at No. 6.

14 BY MR. SCHLESINGER:

11:59 15 Q. Do you remember being asked about  
11:59 16 attitude-related code?

11:59 17 A. Yes.

11:59 18 MR. SCHLESINGER: If we could highlight  
11:59 19 that?

11:59 20 BY MR. SCHLESINGER:

12:00 21 Q. Do you have an understanding of what this is  
12:00 22 describing?

12:00 23 A. I do.

12:00 24 Q. What is that?

12:00 25 A. This is describing the ability to have stable

12:00 1 flight so it'll be able to deal with rapid changes that  
12:00 2 you need to so that you cannot crash.

12:00 3 Q. When it says "attitude sensing and  
12:00 4 determination," what is that referring to?

12:00 5 A. That's the accelerometers and inertial  
12:00 6 guidance systems we talked about before. It means  
12:00 7 those little chips that let it know rapidly how fast  
12:00 8 it's going left/right and getting twisted by the wind,  
12:00 9 for example.

12:00 10 Q. How is that related to Claim 13?

12:00 11 A. It's completely not related to Claim 13.  
12:00 12 Claim 13's not about this stuff.

12:00 13 Q. Are you aware that the relevancy determination  
12:00 14 during discovery is much broader than whether  
12:00 15 something's infringed?

12:00 16 A. Yes.

12:00 17 Q. Now, you were also asked about whether the  
12:00 18 drone that they were testing was holding a velocity of  
12:00 19 zero or holding a position.

12:00 20 Do you recall that?

12:00 21 A. Yes.

12:00 22 Q. What is it doing?

12:01 23 A. It's holding a position.

12:01 24 Q. How can you be so certain?

12:01 25 A. Because when I pull it away, it uses velocity

12:01 1 to get back to that position.

12:01 2 Q. But what about velocity errors? How do you  
12:01 3 know that's not just what's happening?

12:01 4 A. It's actually trying on purpose to get back to  
12:01 5 where it was. You saw how angry it gets when I pull on  
12:01 6 it. And I'm careful with my finger not to get near the  
12:01 7 propeller blades because I want to keep my fingers.

12:01 8 That's why I use the one that has this big  
12:01 9 long stem on it, because I can pull on that and stay  
12:01 10 away from the propeller.

12:01 11 Q. Now, how do you -- if you want to go  
12:01 12 somewhere, from Position A to Position B, how do you  
12:01 13 accomplish that with a drone?

12:01 14 A. You use control software that drives it  
12:01 15 forward and then stops.

12:01 16 Q. Now -- and if you're in position mode, what's  
12:01 17 controlling? Is it position? Is it velocity? Is it  
12:01 18 attitude?

12:01 19 A. It's just the position.

12:01 20 Q. And how can you be so confident?

12:01 21 A. Because I've seen the code and because I can  
12:01 22 use the machine, and they agree.

12:01 23 Q. And did Dr. Michalson have access to that same  
12:01 24 code?

12:01 25 A. Yes.

12:01 1 Q. Now, you heard a lot of talk about hovering  
12:02 2 having to be enabled in the Gold reference.

12:02 3 Do you recall that?

12:02 4 A. I do.

12:02 5 Q. And I believe you had something to explain.

12:02 6 Could you please explain what you're referring  
12:02 7 to?

12:02 8 A. Sure. Counsel was asking me about pushing  
12:02 9 this button and manual enabling versus automatically  
12:02 10 enabling.

12:02 11 The button is an autopilot button that every  
12:02 12 aircraft has to have. Because if something goes wrong  
12:02 13 with the autopilot, you have to be able to turn it off.  
12:02 14 So it has to have an on/off switch.

12:02 15 Once you've turned it on, then half an hour  
12:02 16 later, an hour later, whenever you want, you're flying.  
12:02 17 And when you let go of that control stick, it  
12:02 18 automatically enables the mode.

12:02 19 The whole point of the claim is what happens  
12:02 20 when you let go of the stick. So when we're saying  
12:02 21 automatically engaging, we're talking about what  
12:02 22 happens when you let go of the stick. We're not  
12:02 23 talking about the button you use to turn on and off the  
12:02 24 autopilot mode when you take off in the helicopter and  
12:03 25 go for a ride.

12:03 1 Q. Are you aware that the claims must be read the  
12:03 2 same way for both the infringement and the validity  
12:03 3 analysis?

12:03 4 A. Yes.

12:03 5 Q. Let's take a Phantom 4. That's accused in  
12:03 6 this case, right?

12:03 7 A. Yeah.

12:03 8 Q. Will the Phantom 4 hover if it's not in the  
12:03 9 normal mode?

12:03 10 A. No. It has modes in which it doesn't hover.

12:03 11 Q. And so for the Phantom 4 to hover, you have to  
12:03 12 actually be in a mode that enables the hovering; is  
12:03 13 that right?

12:03 14 A. Yes.

12:03 15 MR. SCHLESINGER: May I approach the  
12:03 16 witness, Your Honor?

12:03 17 THE COURT: Sure.

12:03 18 BY MR. SCHLESINGER:

12:03 19 Q. What are you holding?

12:03 20 A. The Phantom 4 remote controller.

12:03 21 Q. Are there selections available on that?

12:03 22 A. Yes.

12:03 23 Q. What does that selection do?

12:03 24 A. It moves between modes that hover and modes  
12:03 25 that don't.

12:03 1 Q. And so if it's not in the correct mode, will  
12:04 2 the Phantom 4 hover?

12:04 3 A. No.

12:04 4 Q. Did you hear Dr. Michalson talk about this at  
12:04 5 all?

12:04 6 A. No.

12:04 7 Q. Now, let's move on to the '909 patent.

12:04 8 To follow a fixed position behind a moving  
12:04 9 object, the drone needs to change its speed or  
12:04 10 velocity; is that right?

12:04 11 A. Yes.

12:04 12 Q. Now, the '909 patent, that was about velocity  
12:04 13 control?

12:04 14 A. Yes.

12:04 15 Q. And there is a reference to Claim 7 about  
12:04 16 velocity or position control, but do you remember the  
12:04 17 wherein clause?

12:04 18 A. Vaguely.

12:04 19 MR. SCHLESINGER: Let's pull up Claim 7,  
12:04 20 and if we could, go to the last limitation.

12:04 21 BY MR. SCHLESINGER:

12:05 22 Q. When did DJI drones with either Follow Me or  
12:05 23 ActiveTrack ever determine what relative position to  
12:05 24 follow the object?

12:05 25 A. After you're up in the sky, taken off already

12:05 1 and you're choosing the target.

12:05 2 Q. Is that prior to flight?

12:05 3 A. No.

12:05 4 Q. What does the claim require?

12:05 5 A. Prior to flight.

12:05 6 Q. Now, did anything that you heard today change  
12:05 7 your -- or got crossed on today change your opinions?

12:05 8 A. No.

12:05 9 Q. How confident are you?

12:05 10 A. I'm completely confident.

12:05 11 Q. Thank you.

12:05 12 MR. RICH: One question, Your Honor.

12:05 13 RECROSS-EXAMINATION

12:05 14 BY MR. RICH:

12:05 15 Q. On that last point about the wherein clause in  
12:05 16 the '909 patent, DJI's code includes the algorithm  
12:05 17 that's programmed in to select the position and  
12:05 18 velocity, doesn't it?

12:05 19 A. Yes. It has programming.

12:06 20 Q. Thank you.

12:06 21 MR. SCHLESINGER: Nothing further,  
12:06 22 Your Honor.

12:06 23 THE COURT: Thanks for being here,  
12:06 24 Doctor.

12:06 25 Ladies and gentlemen, we will take our

12:06 1 recess, lunch recess. If you would be back by 1:15 or  
12:06 2 1:20, we'll start at 1:30.

12:06 3 THE BAILIFF: All rise.

12:06 4 (Jury exited the courtroom.)

12:06 5 THE COURT: You may be seated.

12:06 6 You may step down, sir, and you're  
12:06 7 excused. Thank you for being here.

12:06 8 Anything we need to take up?

12:06 9 MR. SCHLESINGER: Yes. There's one  
12:06 10 thing, Your Honor.

12:06 11 I didn't want to interrupt counsel during  
12:06 12 his questioning, but he read off the wrong standard of  
12:06 13 obviousness that we -- Your Honor ruled on this morning  
12:06 14 to the jury, and so we think it would be appropriate to  
12:06 15 update the jury instructions.

12:06 16 He told the jury that obviousness  
12:07 17 can't -- means that something's missing from the claim,  
12:07 18 and that's exactly what Your Honor ruled against this  
12:07 19 morning.

12:07 20 THE COURT: Well, the way he said it I  
12:07 21 didn't think was incorrect, and maybe I just misheard  
12:07 22 the way he said it.

12:07 23 MR. SCHLESINGER: Can I read it to you?

12:07 24 THE COURT: Sure.

12:07 25 MR. SCHLESINGER: You use obviousness

12:07 1 when the reference that you're relying on doesn't  
12:07 2 actually teach all of the elements of the claim.

12:07 3 That's the same issue that we had this  
12:07 4 morning.

12:07 5 MR. RICH: And I moved on right after  
12:07 6 that.

12:07 7 MR. SCHLESINGER: I don't think he gave  
12:07 8 me an answer, if I remember, but...

12:07 9 THE COURT: Yeah. I can't imagine out of  
12:07 10 all the jury heard, that that had any impact on them.

12:07 11 MR. SCHLESINGER: Okay.

12:07 12 THE COURT: I know it matters to you and  
12:07 13 everyone on your side, but I would be willing to bet  
12:07 14 none of the jury remembers that particular question out  
12:07 15 of the give and take over the course of the last three  
12:08 16 hours.

12:08 17 So I will respectfully overrule your  
12:08 18 request.

12:08 19 So the defendant has their -- you have  
12:08 20 your damages expert?

12:08 21 MR. SCHLESINGER: Yes, Your Honor.

12:08 22 THE COURT: And then you're done?

12:08 23 MR. SCHLESINGER: Yes, Your Honor.

12:08 24 THE COURT: Then we have your rebuttal  
12:08 25 expert?

12:08 1 MR. RICH: Yes, Your Honor.

12:08 2 THE COURT: And we're done?

12:08 3 Now, I think what my plan -- what I would

12:08 4 prefer to do to get the jury out of here, but I'll need

12:08 5 your agreement, is we've talked about when you'll do

12:08 6 the directed verdict. I would prefer when you all are

12:08 7 done with the evidence to go ahead and move right

12:08 8 into -- well, no. I guess we need to take up whether

12:08 9 or not I'm going to submit willfulness to the jury. So

12:08 10 I guess I need to take that up.

12:08 11 We'll take that up, and then we'll --

12:08 12 I'll read the jury charge. So that will be the plan

12:08 13 for the afternoon. Okay.

12:08 14 MR. SCHLESINGER: Thank you, Your Honor.

12:08 15 THE COURT: Thank you all.

12:08 16 THE BAILIFF: All rise.

12:08 17 (Recess taken.)

01:29 18 THE BAILIFF: All rise.

01:29 19 THE COURT: Please remain standing for

01:29 20 the jury.

01:29 21 (Jury entered the courtroom.)

01:29 22 THE COURT: Thank you. You may be

01:29 23 seated.

01:29 24 Counsel, you may call your next witness.

01:29 25 MS. KESTLE: DJI calls as its next

01:29 1 witness Mr. Todd Schoettelkotte.

01:29 2 (The witness was sworn.)

01:29 3 DIRECT EXAMINATION

01:29 4 BY MS. KESTLE:

01:30 5 Q. Good afternoon. Will you please introduce  
01:30 6 yourself to the jury?

01:30 7 A. Good afternoon. My name is William Todd  
01:30 8 Schoettelkotte. I go by Todd.

01:30 9 Q. And can you tell the jury a little bit more  
01:30 10 about yourself?

01:30 11 A. I'm from Houston, Texas. I'm married to my  
01:30 12 wonderful wife. We've been together for, at this  
01:30 13 point, 27 years. I've got two -- I'll call them grown  
01:30 14 children, but are they ever really grown? I don't  
01:30 15 know. But they're wonderful in their own right.

01:30 16 I've got a daughter who's 25, and my son is  
01:30 17 23. Both are proud graduates of Texas A&M.

01:30 18 Q. I think we heard a little bit earlier that you  
01:30 19 played college basketball. Can you tell us a little  
01:30 20 bit about that?

01:30 21 A. Yeah. I did. It's maybe not as exciting as  
01:31 22 maybe other stories, but I did really enjoy it. I  
01:31 23 played at Purdue and Rice in Houston. I played in the  
01:31 24 early '90s. It would have been back in the time of the  
01:31 25 old Southwest Conference. So we came up here to Waco

01:31 1 on a couple of occasions.

01:31 2 I think we maybe split, but it was always  
01:31 3 tough when we came up. It was -- yeah. It was a good  
01:31 4 time to play basketball. I actually ran into Shaquille  
01:31 5 O'Neal, and he and I played against each other. As you  
01:31 6 might appreciate, it didn't end all that well for me,  
01:31 7 but it was certainly an experience. I think overall  
01:31 8 I'm just grateful to have done it.

01:31 9 Q. Did you prepare any slides to help share your  
01:31 10 analysis today?

01:31 11 A. I did, yes.

01:31 12 MS. KESTLE: Could we -- thank you very  
01:31 13 much.

14 BY MS. KESTLE:

01:31 15 Q. Let's start at the very beginning. Where do  
01:31 16 you work?

01:31 17 A. I work at a company called J.S. Held,  
01:31 18 Incorporated.

01:31 19 Q. And what is J.S. Held, Incorporated?

01:31 20 A. It's a multi-dimensional consulting firm which  
01:31 21 essentially means that they have many practice areas.  
01:31 22 The practice area that I'm in is the area that values  
01:32 23 intellectual property such as patents, trademarks,  
01:32 24 trade secrets, copyrights, things of that nature.

01:32 25 Q. And what position do you hold at J.S. Held?

01:32 1 A. I'm a senior managing director, and I'm  
01:32 2 responsible for running the Houston office.

01:32 3 Q. Okay. Will you tell the jury a little bit  
01:32 4 about your work as a senior managing director?

01:32 5 A. So I do a number of things. As I mentioned,  
01:32 6 I'm responsible for the office which basically means  
01:32 7 responsible for the people.

01:32 8 One of the things I guess I take pride in is,  
01:32 9 having done this work for a long time, I enjoy  
01:32 10 mentoring those who are kind of coming in. So maybe  
01:32 11 teaching them the skills and the crafts to do what we  
01:32 12 do, as well as assisting them in their personal growth.

01:32 13 I also work heavily with clients in the  
01:32 14 valuation of their intellectual property. Oftentimes  
01:32 15 that valuation is done either for a commercial sale  
01:32 16 when one company wants to sell something to another  
01:32 17 company or perhaps in a litigation like we are here,  
01:33 18 where we'll value that technology for purposes of  
01:33 19 identifying what a potential harm might be.

01:33 20 Q. And how long have you been working on the  
01:33 21 valuation of intellectual property and analyzing  
01:33 22 damages and business disputes?

01:33 23 A. Well, it bookends my kids. So I said I've got  
01:33 24 two kids, and I started before they came to the house,  
01:33 25 and I'm still working, and they're gone from the house.

01:33 1 So at this point, just about 30 years.

01:33 2 Q. Okay. And have you ever assisted companies in  
01:33 3 licensing negotiations as a financial consultant?

01:33 4 A. I have. It's something that I do quite often.  
01:33 5 And generally how that works is we will be contacted by  
01:33 6 companies who have intellectual property assets and  
01:33 7 they're looking to, what we would say, monetize them.

01:33 8 And what I mean by that is they're looking to  
01:33 9 either value them for a potential sale or they're  
01:33 10 looking to license them to someone else, and so they  
01:33 11 will come to us and ask us how we might help them with  
01:33 12 that.

01:33 13 It generally involves studying the technology,  
01:33 14 studying the various financial considerations that  
01:34 15 might go with a license. Everything from the  
01:34 16 competitive status in the market to the importance of  
01:34 17 the technology, any licensing that has been done in the  
01:34 18 market that we might be able to use as a proxy for what  
01:34 19 the technology is worth.

01:34 20 Kind of like you would think if you were going  
01:34 21 to buy a house and you looked at other houses that were  
01:34 22 similar that might have a similar price, same number of  
01:34 23 bedrooms, a garage, three bathrooms, those kind of  
01:34 24 things. Again, that's called the market approach.

01:34 25 Q. And will you tell the jury a little bit about

01:34 1 your education and how it allows you to do the work  
01:34 2 that you do?

01:34 3 A. Yes. I feel very fortunate I had the  
01:34 4 opportunity to study at both Purdue and Rice. I  
01:34 5 studied in the business schools at both universities.  
01:34 6 Ultimately I earned my bachelor's in Business  
01:34 7 Management. The focus there was on courses in  
01:34 8 accounting, economics, finance, statistics.

01:34 9 I then stayed at Rice and earned my master's  
01:34 10 in Accounting.

01:35 11 Ultimately what those skills allowed me to do  
01:35 12 is it's really something called forensic accounting,  
01:35 13 where you are really understanding the ebbs and flows  
01:35 14 of financial information and how revenues and costs  
01:35 15 interact together, how pricing matters, competition in  
01:35 16 the marketplace. All of those things kind of wound up  
01:35 17 in one as part of my education.

01:35 18 Q. Do you have any professional certifications or  
01:35 19 memberships?

01:35 20 A. I do. I'm a certified public accountant in  
01:35 21 the State of Texas. It's something that most people  
01:35 22 think about in terms of doing taxes. And I guess I  
01:35 23 would say that there's many CPAs out there like myself  
01:35 24 who are focused on, as I mentioned, the forensic  
01:35 25 accounting aspect of assisting companies in either

01:35 1 valuing things or helping them understand what the  
01:35 2 value of an asset is or even intellectual property.  
01:35 3 So part of my role is to serve as a CPA and  
01:35 4 follow the guidelines of all things that CPAs are  
01:36 5 required to do as part of their normal ordinary course.  
01:36 6 Q. I think you mentioned mentorship a little bit  
01:36 7 earlier as your role as a senior managing director.  
01:36 8 Have you ever taught any classes related to your work?  
01:36 9 A. I have. So one of the things that's  
01:36 10 oftentimes very fun to do, I really certainly enjoy it,  
01:36 11 is working with young people. Certainly not only in my  
01:36 12 office, but outside of my office. I've had the  
01:36 13 opportunity to teach at Georgetown in D.C., the  
01:36 14 Chicago-Kent in Chicago, of course, John Marshall in  
01:36 15 Chicago, as well as the University of Oregon on topics  
01:36 16 that would include accounting, finance topics such as  
01:36 17 valuation as well as how to calculate patent damages.  
01:36 18 Q. And during your almost 30-year career, have  
01:36 19 you ever received any recognition for your work valuing  
01:36 20 patents, trademarks and other forms of intellectual  
01:36 21 property?  
01:36 22 A. You know, I have. It's one of those things,  
01:36 23 maybe it reminds me of being an athlete. You work  
01:37 24 really hard and you hope that you do well and somebody  
01:37 25 recognizes you. In your career, you do the same thing.

01:37 1 I'm fortunate, again, to be recognized by Intellectual  
01:37 2 Asset Magazine as a global leader and a leading patent  
01:37 3 damages expert for my work with patents and patent  
01:37 4 valuation.

01:37 5 Q. And have you testified before at a trial just  
01:37 6 like this one for cases involving damages for  
01:37 7 intellectual property and business disputes?

01:37 8 A. I have. I've had the opportunity to testify  
01:37 9 in district courts, like this one, as well as state  
01:37 10 courts, and also at the ITC, which is the International  
01:37 11 Trade Commission, which regulates what products come in  
01:37 12 and out of the U.S. And they also look at patent  
01:37 13 coverage and things like that. I've also been here in  
01:37 14 Waco before.

01:37 15 Q. And just as part of your work experience, have  
01:37 16 you ever worked on a case that involved drones before?

01:37 17 A. I have. So one of the cases that I have  
01:37 18 worked on was a case for the Drone Racing League.  
01:37 19 Sometimes it's called DRL. And if I was to simplify  
01:38 20 it, DRL, or Drone Racing League, it's a little bit like  
01:38 21 NASCAR for drones. It's a closed course inside where  
01:38 22 professional drone racers race an obstacle course.

01:38 23 There was a shareholder dispute for the owners  
01:38 24 of the Drone Racing League, and my job in the case was  
01:38 25 to value the enterprise and all the assets and then

01:38 1 determine what portion of the value would have been  
01:38 2 attributable to that shareholder in the dispute.

01:38 3 MS. KESTLE: Your Honor, at this time DJI  
01:38 4 would offer Mr. Todd Schoettelkotte as an expert in the  
01:38 5 valuation of intellectual property and patent damage  
01:38 6 awards.

01:38 7 MR. PANKRATZ: No objections.

01:38 8 THE COURT: He'll be admitted as such.

01:38 9 BY MS. KESTLE:

01:38 10 Q. Let's talk a little bit more about why you're  
01:38 11 here today.

01:38 12 Mr. Schoettelkotte, what were you asked to do  
01:38 13 for this case?

01:38 14 A. I was asked to assist the jury, based upon my  
01:38 15 review and assessment of the work of Mr. Andrien and  
01:38 16 his report, and also to prepare my own analysis of  
01:38 17 damages in this case to the extent that the jury were  
01:38 18 to find the two patents valid and infringed.

01:39 19 Q. And were you here for the testimony of  
01:39 20 Dr. Nourbakhsh?

01:39 21 A. I was, yes.

01:39 22 Q. Okay. And would you please remind the jury of  
01:39 23 his conclusions regarding infringement in this case?

01:39 24 A. My understanding is Dr. Nourbakhsh arrived at  
01:39 25 the conclusions that the DJI drones do not infringe the

01:39 1 '909 and '752 patents, and also that the '909 and '752  
01:39 2 patents are invalid.

01:39 3 Q. You answered my next question. So what does  
01:39 4 all of that mean from a damages perspective?

01:39 5 A. To the extent that the patents are either not  
01:39 6 valid or they are not infringed, there would be no  
01:39 7 damages in this case. And so my role as a damages  
01:39 8 expert, and frankly Mr. Andrien's role as a damages  
01:39 9 expert, would not be necessary. Because without  
01:39 10 validity and without infringement, there can be no  
01:39 11 damages.

01:39 12 Q. So if no damages are owed, why are you sitting  
01:39 13 here today?

01:39 14 A. Well, because I understand that the way the  
01:40 15 process works for ourselves in providing evidence for  
01:40 16 the jury to consider is it all comes out at once, both  
01:40 17 information regarding validity and infringement or  
01:40 18 invalidity and noninfringement as well as damages. It  
01:40 19 all comes out at once, and there's no break in the  
01:40 20 middle.

01:40 21 So the jury has to make a determination at  
01:40 22 once, once all the facts are in, as to both validity  
01:40 23 and infringement and damages. And so I'm here to  
01:40 24 provide my opinion, as Mr. Andrien was, to make sure  
01:40 25 that the jury has everything they need to make an

01:40 1 informed decision.

01:40 2 Q. And can you remind the jury how much Textron  
01:40 3 and Mr. Andrien are asking for?

01:40 4 A. \$367 million.

01:40 5 Q. Okay. And have you been able to evaluate that  
01:40 6 number?

01:40 7 A. I have, yes.

01:40 8 Q. Okay. And what did you conclude?

01:40 9 A. It's my opinion that that is a significantly  
01:41 10 overstated ask for damages in this case.

01:41 11 Q. Okay. And can you quickly walk us through  
01:41 12 some of the information you've reviewed as part of your  
01:41 13 analysis?

01:41 14 A. So one of the first things I do is I review  
01:41 15 the '909 and '752 patents. I'm not a technical expert,  
01:41 16 but I try to gain as much information as I can. You'll  
01:41 17 see in a moment that I discussed the technology with  
01:41 18 Dr. Nourbakhsh. So it gives me the opportunity to ask  
01:41 19 questions and get his perspective as an expert on what  
01:41 20 those patents mean.

01:41 21 I also review the legal filings in the case,  
01:41 22 not as a lawyer would, but just to inform me of what  
01:41 23 the parties are alleging in the case.

01:41 24 I also reviewed Textron and DJI documents that  
01:41 25 were produced in this case. They're provided to me by

01:41 1 counsel. I don't work directly with the companies.  
01:41 2 Counsel gives me information and I ask for information,  
01:41 3 and that information then comes to me for me to review.

01:41 4 In this case, what I really tried to do is  
01:41 5 look at documents from both Textron as well as DJI.  
01:42 6 And so you'll see throughout my presentation, I'm going  
01:42 7 to show you both and how they both impacted my opinion.

01:42 8 Q. And have you been present for this trial to  
01:42 9 hear previous testimony?

01:42 10 A. I have. So I've been here in Waco since this  
01:42 11 past weekend. I've been in the courtroom for a very  
01:42 12 significant portion of the case and working back at the  
01:42 13 hotel and then reading -- I think we heard about trial  
01:42 14 transcripts. I understand that the kind court  
01:42 15 reporters here will type up what is said at trial, and  
01:42 16 I've asked for those in the evening when I haven't seen  
01:42 17 things. Most of it's been deposition testimony that  
01:42 18 was played, and I had the opportunity to review that.

01:42 19 Q. And what has that testimony indicated to you  
01:42 20 about the value of Textron's patents in this case?

01:42 21 A. Several things. I start from an understanding  
01:42 22 that this technology is -- it's incremental and, if  
01:42 23 anything, would only provide minor -- very small  
01:42 24 improvements over what came before.

01:43 25 Now, I learned that from my discussions with

01:43 1 Dr. Nourbakhsh as well as the presentation that he gave  
01:43 2 both yesterday and today. But what I wanted to do is  
01:43 3 understand from an economic standpoint, whether there  
01:43 4 were things that I reviewed that were consistent with  
01:43 5 what he arrived at. And a few of those things that I  
01:43 6 identified were, I understand that Textron does not use  
01:43 7 the two patents at issue.

01:43 8 And in the economic world, we call those idle  
01:43 9 patents. They're just sitting. So they're not being  
01:43 10 used by -- for any real purpose. It's a bit like if  
01:43 11 you were, again, looking around your house and you have  
01:43 12 a lot of things in your house and say, well, I don't  
01:43 13 necessarily use those things. And if I don't use them,  
01:43 14 how really valuable are -- they are to me.

01:43 15 So the fact that they don't use them was  
01:43 16 relevant, and then I understand that at least for the  
01:43 17 '909 patent, they offered to sell it to DJI. And  
01:43 18 that's another piece of evidence that would suggest  
01:43 19 that when you're looking to sell something that perhaps  
01:44 20 you don't use, you're looking to sell it such that you  
01:44 21 can get a return on it, but it really isn't all that  
01:44 22 important to you.

01:44 23 And then lastly, and I'll talk about this  
01:44 24 later in my presentation, an economic theory to value  
01:44 25 intellectual property, certainly patents, is whether

01:44 1 there are available alternatives to those patents. And  
01:44 2 to the extent that there are available alternatives,  
01:44 3 the cost of that alternative, it's a bit like if you  
01:44 4 said I could drive today and I could pay \$5 to park or  
01:44 5 I could take the bus and pay \$4.75.

01:44 6                 And those are alternatives. And maybe they  
01:44 7 have a very, very small distinct cost from an economic  
01:44 8 standpoint. So doing one or the other really doesn't  
01:44 9 impact you all that much. If there's an alternative to  
01:44 10 a patent, an alternative design, and you can use that  
01:44 11 at relatively low cost, companies will move to those  
01:44 12 things, certainly if they're facing an extraordinarily  
01:45 13 overstated royalty ask in a patent case.

01:45 14 Q.         And so before we dive into your specific  
01:45 15 opinions, I'd just like to walk through a couple basic  
01:45 16 principles. And so let's start first with what is a  
01:45 17 royalty?

01:45 18 A.         So royalty, it's an interesting concept. And  
01:45 19 I'm going to use an analogy. And I'm -- I guess I'm a  
01:45 20 little bit embarrassed to do that, but I want to make  
01:45 21 sure that if I provide an analogy, it will make sense.

01:45 22                 It's always reminded me of renting something  
01:45 23 like an apartment. It's really about usage.

01:45 24                 It's one of those situations where if you were  
01:45 25 going to rent an apartment for a period of time, you

01:45 1 might go to a landlord and you might say, I'd like to  
01:45 2 rent the apartment for a couple months, and the  
01:45 3 landlord would give you the keys and you would give the  
01:45 4 landlord the rent money, and then you could stay in the  
01:45 5 apartment. So it's a payment for usage.

01:45 6 With a patent, you'll see on this diagram I  
01:45 7 have, instead of renting an apartment, you're really  
01:45 8 renting or licensing the patents. You're saying, I'd  
01:46 9 like to use those patents.

01:46 10 And so just like you're using that apartment,  
01:46 11 you enter into a license agreement as opposed to a  
01:46 12 rental agreement, where the patent owner and the  
01:46 13 licensee agree on an amount, they sign a license  
01:46 14 agreement like a lease agreement for an apartment, and  
01:46 15 then they exchange a royalty just like you would a  
01:46 16 rental.

01:46 17 So it's really like you're renting those  
01:46 18 patents for a period of time.

01:46 19 Q. And what form can a royalty come in?

01:46 20 A. There's really two forms. One is called an  
01:46 21 upfront lump-sum payment. It's where you pay one  
01:46 22 single amount all up front for the usage of that  
01:46 23 technology.

01:46 24 And the other is called a running royalty,  
01:46 25 where you pay periodically for your continued use of

01:46 1 the technology. Both are -- both are appropriate and  
01:46 2 informative in certain circumstances.

01:46 3 Q. And what form do you consider informative or  
01:46 4 appropriate in this circumstance?

01:46 5 A. In this case, I think --

01:46 6 MR. PANKRATZ: Objection, Your Honor.

01:46 7 This is outside the scope of his report and what he's  
01:47 8 permitted to testify to.

01:47 9 THE COURT: Overruled.

01:47 10 MR. PANKRATZ: All right.

01:47 11 A. So it's my opinion that in this case in  
01:47 12 particular, an upfront lump sum would be an appropriate  
01:47 13 measure of damages, and there's a number of reasons for  
01:47 14 that.

01:47 15 THE COURT: Hold on one second.

01:47 16 I must have misheard the -- I thought the  
01:47 17 question was just an explanation of lump sum.

01:47 18 Do you have somewhere in his report where  
01:47 19 he points out --

20 MS. KESTLE: Yes, Your Honor.

01:47 21 THE COURT: -- that he's selected a lump  
01:47 22 sum and then why?

01:47 23 MR. PANKRATZ: May we approach,  
01:47 24 Your Honor?

01:47 25 THE COURT: Sure.

01:47 1 (Bench conference.)

01:47 2 MR. PANKRATZ: Your Honor, we filed a

01:47 3 Daubert that was granted on his lump-sum analysis. He

01:47 4 had an opinion that the lump sum was appropriate, and

01:47 5 it was excluded. All the bases for that analysis were

01:47 6 excluded.

01:47 7 I suppose he can say that he thinks a

01:48 8 lump sum is appropriate, but he cannot say what he

01:48 9 thinks the number is.

01:48 10 THE COURT: Was his lump sum excluded?

01:48 11 MS. KESTLE: No. It was just the

01:48 12 reliance on settlement agreements. His lump-sum

01:48 13 discussion applied to both his response to

01:48 14 Mr. Andrien's opinion and his discussion of settlement

01:48 15 agreements.

01:48 16 THE COURT: Well, his opinion was either

01:48 17 excluded or it wasn't.

01:48 18 Do you have the order where it was

01:48 19 excluded?

01:48 20 MR. PANKRATZ: I can get you that.

01:48 21 MS. KESTLE: And --

01:48 22 THE COURT: I mean, it's kind of black

01:48 23 and white.

01:48 24 MR. PANKRATZ: He may not rely -- his

01:48 25 entire lump-sum analysis was based on two agreements.

01:48 1 He is not permitted to rely on those two agreements.

01:48 2 MS. KESTLE: In addition to discussing  
01:48 3 some of those agreements, which was a separate issue,  
01:48 4 he also critiqued Mr. Andrien's discussion and reliance  
01:48 5 on a running royalty and said that it would be --

01:48 6 THE COURT: Well, he can do that --

01:48 7 MS. KESTLE: -- appropriate to be a lump  
01:48 8 sum, and that's exactly what he's doing now.

01:48 9 THE COURT: -- but he doesn't get to talk  
01:48 10 about the lump sum if it was excluded. And I don't  
01:48 11 know if it was or not.

01:48 12 MS. KESTLE: It wasn't excluded.

01:48 13 (Bench conference ends.)

01:48 14 THE COURT: Ladies and gentlemen, we're  
01:48 15 going to take a short recess. If you would remember my  
01:49 16 instructions.

01:49 17 THE BAILIFF: All rise.

01:49 18 (Jury exited the courtroom.)

01:49 19 THE COURT: You may be seated.

01:49 20 You can step down.

01:49 21 Okay. The objection, as I understand it,  
01:49 22 has to do with the fact that plaintiff's counsel  
01:49 23 informs me that a Daubert was granted with respect to  
01:49 24 this witness being able to proffer an opinion with  
01:49 25 regard to a lump sum.

01:49 1                   And as I understood it, but I may not  
01:49 2 understand it fully, it was because he based it on two  
01:49 3 license agreements or he based it on something and it  
01:49 4 was excluded.

01:49 5                   So let me hear first from plaintiff as to  
01:49 6 your position on what the ruling was on the Daubert  
01:50 7 motion.

01:50 8                   MR. PANKRATZ: And, Your Honor, may I  
01:50 9 approach and hand you the order?

01:50 10                  THE COURT: Sure. Please.

01:50 11                  Okay. Thank you.

01:50 12                  MR. PANKRATZ: Your Honor,  
01:50 13 Mr. Schoettelkotte's lump-sum analysis was premised on  
01:50 14 his starting point of two agreements. We filed a  
01:50 15 Daubert, Docket No. 141, which was granted excluding  
01:50 16 his reliance on those two agreements.

17                       I've handed you the order and the  
18 transcript.

01:50 19                  Without those two agreements, he does not  
01:50 20 have any lump-sum number to provide.

01:50 21                  THE COURT: Let me hear a response to  
01:50 22 that.

01:50 23                  MS. KESTLE: Your Honor, in at least  
01:50 24 Paragraphs 62 through 66 of his report, he opines on  
01:50 25 Mr. Andrien's failure to properly consider evidence of

01:51 1 a lump-sum royalty structure. That's the only opinion  
01:51 2 he is trying to provide today. He is not getting into  
01:51 3 these settlement agreements --

01:51 4 THE COURT: Slow down.

01:51 5 I heard you ask him about whether or not  
01:51 6 he had offered a lump-sum opinion, did I not?

01:51 7 I mean, that was why I stopped it.

01:51 8 Wasn't he about to say that he thought a lump sum would  
01:51 9 be appropriate here?

01:51 10 MS. KESTLE: Yes. He was about to say  
01:51 11 that, and that is entirely consistent with parts of his  
01:51 12 opinion that were not excluded.

01:51 13 THE COURT: And he is going to say -- but  
01:51 14 the plaintiff is worried he was going to offer a  
01:51 15 lump-sum opinion which has been stricken.

01:51 16 And what you're telling me is that he is  
01:51 17 going to say he thinks a lump sum would have been  
01:51 18 appropriate in this case and not the running royalty  
01:51 19 that plaintiff's expert did, and then he's going to  
01:51 20 explain why -- consistent with what he had in his  
01:51 21 report, why he's going to criticize the plaintiff's  
01:51 22 report for not being a lump sum.

01:51 23 And that's as far as you're going to go?

01:51 24 MS. KESTLE: Yes, Your Honor. That's  
01:51 25 correct. He will provide --

01:51 1 THE COURT: I got it.

01:51 2 Do you have an objection to that?

01:52 3 MR. PANKRATZ: No, Your Honor. Thank

01:52 4 you.

01:52 5 THE COURT: Okay. Very good.

01:52 6 William, will you bring the jury back in,

01:52 7 please?

01:53 8 (Jury entered the courtroom.)

01:53 9 THE COURT: Thank you. You may be

01:53 10 seated.

01:53 11 Counsel, you may continue.

01:53 12 BY MS. KESTLE:

01:53 13 Q. As I asked you before the break, what form do

01:53 14 you consider to be -- what form of a royalty do you

01:53 15 consider to be appropriate in this case?

01:53 16 A. An upfront lump-sum royalty.

01:53 17 Q. And how do you go about calculating royalty in

01:53 18 a patent case?

01:53 19 A. There's a -- there's a construct called the

01:53 20 hypothetical negotiation, and the first thing we do is

01:53 21 we want to understand what is the timing of that

01:53 22 hypothetical negotiation? When does it happen? When

01:54 23 did the two parties meet?

01:54 24 The second thing that we do is we look at what

01:54 25 is -- or who are, rather, the parties. In this case it

01:54 1 would be Textron and DJI.

01:54 2 And then, lastly, we determine what is the  
01:54 3 amount that the parties would agree upon.

01:54 4 Q. And you mentioned a hypothetical negotiation.

01:54 5 When would that hypothetical negotiation occur  
01:54 6 in this case?

01:54 7 A. There's actually two of them. It's April of  
01:54 8 2015 for the '909 patent, and October of 2015 for the  
01:54 9 '752 patent.

01:54 10 Q. And how do you go about determining the  
01:54 11 royalty that the parties would have agreed to at that  
01:54 12 hypothetical negotiation?

01:54 13 A. So as a patent valuator, for purposes of  
01:54 14 determining a royalty in a patent case, we look at a  
01:54 15 case that happened in the state of New York in 1970.  
01:54 16 And it's somewhat of a precedent on something that  
01:55 17 damages experts and valuators should look at. It's  
01:55 18 called the Georgia-Pacific case.

01:55 19 And the Georgia-Pacific case identified 15  
01:55 20 factors. And of those 15 factors, some of them relate  
01:55 21 to licensing, some of them relate to financial factors  
01:55 22 and some of them relate to the actual technology  
01:55 23 itself.

01:55 24 And you look at all of those factors, as well  
01:55 25 as other considerations, and in a hypothetical

01:55 1 negotiation you evaluate those factors to determine  
01:55 2 what a reasonable royalty would be.

01:55 3 Q. And did you consider all 15 of these factors  
01:55 4 as part of your analysis for this case?

01:55 5 A. I did, but we only really need to talk about  
01:55 6 the ones that were most relevant.

01:55 7 And in this case, it's my opinion that  
01:55 8 Factors 5, 9, 10 and 13, as well as Factor 15, which is  
01:55 9 the hypothetical, would be most relevant.

01:55 10 Q. Okay. And looking at your last bullet point  
01:55 11 here, Textron and DJI are not competitors.

01:56 12 Why is that your opinion?

01:56 13 A. It is because -- and you want me to move to  
01:56 14 the last bullet point?

01:56 15 Q. Yes. Yes. Thank you.

01:56 16 A. Thank you.

01:56 17 So the reason that would be is because DJI  
01:56 18 sells drones -- we've heard a lot about that -- and  
01:56 19 Textron does not.

01:56 20 And what that tells us is, is that they're not  
01:56 21 competing head to head. We've heard evidence in the  
01:56 22 case that there's no evidence of competition in the  
01:56 23 marketplace where there was a lost sale.

01:56 24 When we look at the economics of competition,  
01:56 25 we often try to see if there is a situation where the

01:56 1 parties are going head to head to try to sell an asset  
01:56 2 to a particular customer, and we have not seen that  
01:56 3 here. So that's certainly something that we've looked  
01:56 4 at.

01:56 5 And in addition, and very importantly, DJI's  
01:56 6 customers are oftentimes very different than customers  
01:56 7 of Textron. DJI customers are those focused on using  
01:57 8 drones for consumer purposes; whereas, Textron's  
01:57 9 customers are much more commercial- or  
01:57 10 government-oriented.

01:57 11 I wanted to look into this a little bit more,  
01:57 12 and so I did two things. And I also heard some  
01:57 13 testimony. There's a gentleman named Mr. Pascal. He  
01:57 14 testified, I think, yesterday via deposition. He's a  
01:57 15 Textron witness. And he, himself, identified at least  
01:57 16 twice during the deposition that I heard that he did  
01:57 17 not see a situation where Textron and DJI were  
01:57 18 competing.

01:57 19 And then as a valuation person, I have various  
01:57 20 resources that I go to to check to see if there's  
01:57 21 competition. One is the SEC filings that are available  
01:57 22 to me. The SEC is where Textron files its  
01:57 23 publicly-available financial statements for people who  
01:57 24 own their stock to read and see.

01:57 25 And I looked at that SEC filing 10-K, if you

01:57 1 will, and I did not see any reference to drones as  
01:57 2 competition, and certainly not any reference to DJI.

01:57 3 I also looked at Capital IQ, which is an  
01:58 4 organization that's owned by Standard & Poor's that  
01:58 5 identifies competitors in each market. And they did  
01:58 6 not identify either drones or any drone manufacturer to  
01:58 7 be a competitor of Textron.

01:58 8 Q. And I think you mentioned the -- Textron's  
01:58 9 offer to sell the '909 patent a little bit earlier.

01:58 10 A. Do you remember that?

01:58 11 A. Yes.

01:58 12 Q. Okay. And have you, yourself, reviewed that  
01:58 13 offer to sell, which I believe is Exhibit PX-67 which  
01:58 14 has already been introduced into evidence?

01:58 15 A. Yes. I have.

01:58 16 Q. Okay. And how does Textron's offer to sell  
01:58 17 the '909 patent inform your understanding of the  
01:58 18 competitive relationship or lack thereof between  
01:58 19 Textron and DJI?

01:58 20 A. I mentioned as an accountant and evaluator,  
01:58 21 we're oftentimes looking at many, many documents from  
01:58 22 both sides. So I've seen competition, competitive  
01:58 23 documents in all types of situations with all types of  
01:58 24 products. And as I read this, there were a few things  
01:58 25 that stuck out to me as to why this suggests that there

01:58 1 is not competition between these two parties.

01:59 2 The first is a -- if you were just to look up  
01:59 3 at the top here it says "opportunity for DJI." And in  
01:59 4 the documents that I'm normally seeing where there's  
01:59 5 head-to-head competition or competition in the  
01:59 6 marketplace, you're not looking for opportunities to  
01:59 7 give to a competitor. You're looking to compete with  
01:59 8 them.

01:59 9 Here what you read is, in the top paragraph --  
01:59 10 and maybe if we could highlight it. It says: We  
01:59 11 identified a patent family that may be of interest to  
01:59 12 DJI. The family includes the below United States --  
01:59 13 you're going to start at the "we" and "identified" --  
01:59 14 we identified a patent family that may be of interest.  
01:59 15 The family includes the below United States patents as  
01:59 16 well as counterparts in China, Canada, Germany, France  
01:59 17 and Great Britain.

01:59 18 And then you'll see the '909 patent listed.  
01:59 19 And what that's saying is that this opportunity that  
01:59 20 they want to give DJI is not only a U.S. patent, but  
01:59 21 they want to give them rights to this patent -- and I  
02:00 22 said "give." I take that back. I'm sorry. Sell them  
02:00 23 rights, not only in the U.S. but also in China, Canada,  
02:00 24 Germany, France and Great Britain, as well as Italy.  
02:00 25 So almost a worldwide rights to this patent.

02:00 1 If you have important technology, you don't  
02:00 2 share that with your competitors. You hold that close  
02:00 3 to the vest.

02:00 4 Lastly, at the bottom, it says, Bell has  
02:00 5 decided to sell. This wasn't a situation, at least as  
02:00 6 I read it, where they're looking for anything else but  
02:00 7 to get into a transaction with another company. This  
02:00 8 patent family is reaching out to a number of companies  
02:00 9 in the UAV market if your company is interested in  
02:00 10 purchasing these patents.

02:00 11 So again, I'm involved in transactions where  
02:00 12 there's commercial sales of intellectual property as  
02:00 13 well as licensing. This is very standard, fair type  
02:00 14 stuff you would see between companies. Certainly there  
02:00 15 doesn't appear to me, as an economic person, to  
02:01 16 identify any competitive threat in this document.

02:01 17 Q. And earlier I believe you also mentioned you  
02:01 18 do not agree with Mr. Andrien's opinions in this case.

02:01 19 Can you just explain for us at a high level  
02:01 20 why you disagree with Mr. Andrien and his opinions?

02:01 21 A. Sure. And I'm going to see if I can clear  
02:01 22 that, if I can.

02:01 23 There we go.

02:01 24 So I pulled together this slide, and there's a  
02:01 25 lot on it so I'm going to go through it rather quickly,

02:01 1 and then I'll get into the details. It's my opinion  
02:01 2 that Mr. Andrien failed to properly account for the  
02:01 3 full value of the camera and gimbal.

02:01 4 You may recall he said that was a subtraction  
02:01 5 that he made in order to reduce the price associated  
02:01 6 with a drone. It's also my opinion that he failed to  
02:01 7 deduct DJI's costs to manufacture and sell drones.  
02:01 8 That he failed to apply Textron's own profit split  
02:01 9 approach. That he failed to consider DJI's innovations  
02:02 10 to drones, and lastly that he failed to consider the  
02:02 11 cost of alternative designs.

02:02 12 Q. And I'd like to walk through each of these one  
02:02 13 by one with you, if everyone will indulge.

02:02 14 Let's start with the first one. Would you  
02:02 15 please explain what you mean by fail to properly  
02:02 16 account for the full value of the camera/gimbal?

02:02 17 A. As part of my work on this case, I understand  
02:02 18 that Mr. Andrien deducted what he called the  
02:02 19 replacement costs of a camera and a gimbal, which is,  
02:02 20 to my understanding, what attaches the camera to the  
02:02 21 drone.

02:02 22 But as you saw these drones, they're very much  
02:02 23 integrated devices. And so the camera and the gimbal,  
02:02 24 they don't work separate and apart from the drone. In  
02:02 25 fact, inside the drone, I understand that there are

02:02 1 image processors and also what I would term as a motor  
02:02 2 that actually helps move the camera. It moves the  
02:03 3 camera for things such as taking, say, a panoramic  
02:03 4 picture. And so those types of features inside of the  
02:03 5 drone are things that Mr. Andrien didn't take out when  
02:03 6 he made his deduction. And all of those are integrated  
02:03 7 into the drone and work hand in hand, if you will, with  
02:03 8 the camera and its functionality.

02:03 9 MS. KESTLE: And before we turn to the  
02:03 10 second point here, Your Honor, I believe at this point  
02:03 11 we'll have to seal the courtroom. We're about to get  
02:03 12 into some confidential materials.

02:03 13 THE COURT: If you're not under the  
02:03 14 protective order, would you please excuse yourself?

02:03 15 (Sealed proceedings.)

02:03 16 A. May I just add one thing that I had forgotten  
02:03 17 to mention?

02:03 18 BY MS. KESTLE:

02:03 19 Q. Yes. Absolutely.

02:03 20 A. I'm sorry. As part of the camera, because  
02:03 21 those other elements that were integral in the actual  
02:03 22 drone that work with the camera were not deducted, it's  
02:03 23 my opinion that his deduction for the camera was not  
02:03 24 enough. Thank you.

02:04 25 Q. Okay. So then let's turn to your second

02:04 1 bullet point here. And would you please explain what  
02:04 2 you mean by Mr. Andrien failed to deduct DJI's costs to  
02:04 3 manufacture and sell drones?

02:04 4 A. So we get into a very interesting part of  
02:04 5 measuring the value of patents, and this is about  
02:04 6 something called apportionment. What we're really  
02:04 7 required to do in a patent case is be very careful to  
02:04 8 apportion down to just the footprint of the patented  
02:04 9 technology in the marketplace, which means we have to  
02:04 10 be very careful that we're not valuing other features  
02:04 11 and attributes of the drone unnecessarily and putting  
02:04 12 that in the royalty or the damages.

02:04 13 We have to get just to that patented feature,  
02:04 14 and this is one of the first areas where I notice that  
02:04 15 I don't believe Mr. Andrien did that correctly.

02:04 16 Q. Okay. And what cost did Mr. Andrien deduct?

02:04 17 A. If we would go to the next slide. Thank you.

02:04 18 We heard from Mr. Andrien that DJI had  
02:05 19 [REDACTED] in revenue. And he deducted, I believe he  
02:05 20 testified, roughly \$90,000. On this particular  
02:05 21 document, it says 134, but I believe his testimony was  
02:05 22 that he deducted \$90,000.

02:05 23 And so that caught my attention as, one, an  
02:05 24 accountant who looks at revenue and costs, but it  
02:05 25 struck me if you're only deducting \$90,000 in costs

02:05 1 from [REDACTED] in revenue, how -- how could it be  
02:05 2 that they could bring a drone to market for that little  
02:05 3 money? How is it possible that DJI could bring a drone  
02:05 4 to market for only \$90,000 but sell [REDACTED] in  
02:06 5 drones?

02:06 6 There's an enormous disconnect there, and so I  
02:06 7 did some investigation.

02:06 8 Q. Okay. And can you walk us through a little  
02:06 9 bit about why that disconnect may be a problem or an  
02:06 10 issue here?

02:06 11 A. Sure.

02:06 12 Could we go to the next slide? Thank you.

02:06 13 And if you would advance one more, please.

02:06 14 So when you study DJI, they do not sell  
02:06 15 standalone software. They don't sell ActiveTrack,  
02:06 16 Follow Me and Hover as standalone software. You  
02:06 17 couldn't go to -- back in the day when you could go to  
02:06 18 a store and buy, you know, a tax software off the shelf  
02:06 19 or some other software off the shelf. They're not  
02:06 20 selling it like that.

02:06 21 DJI sells drones, and those drones have this  
02:06 22 software on it. But in order for this software to ever  
02:06 23 go to the market, they have to create a drone and sell  
02:06 24 that drone.

02:06 25 In accounting we call this the matching

02:06 1 principle. Whenever you have a revenue, you have to  
02:07 2 match the cost that's associated with that revenue. So  
02:07 3 if you have \$100 in revenue and you have \$80 in costs,  
02:07 4 you have to match those so that the result is a \$20  
02:07 5 profit. 100 minus 80, a \$20 profit.

02:07 6 So you have to have your revenue and match all  
02:07 7 the costs. That's not what Mr. Andrien did here.

02:07 8 Q. So in your opinion, what costs should have  
02:07 9 been deducted?

02:07 10 A. Mr. Andrien should have deducted all the costs  
02:07 11 associated with manufacturing the drone because that's  
02:07 12 what DJI does.

02:07 13 Q. And how did you determine what those costs  
02:07 14 were in this case?

02:07 15 A. Sure. So as part of my work in this case, I  
02:07 16 looked at various financial documents that were  
02:07 17 provided by DJI in this case. And after having  
02:07 18 reviewed those, I spoke with Ms. Huang who is one of  
02:07 19 their accounting professionals with DJI, and I also  
02:08 20 reviewed her deposition.

02:08 21 And what she identified for me is that to  
02:08 22 manufacture a drone, they perform research and  
02:08 23 development, that's on the far left, which means  
02:08 24 they're studying various ways to put technologies  
02:08 25 together to assemble things properly, to make sure that

02:08 1 they meet all the standards that they need to, to test  
02:08 2 them, all types of research that they do. And there's  
02:08 3 a cost to that. So that could be a cost that would  
02:08 4 need to be deducted.

02:08 5 After R&D happens, so they know how to build  
02:08 6 it, then they have to manufacture it, which means you  
02:08 7 have the componentry but also the labor and also the  
02:08 8 direct overhead. Because you have to have a building,  
02:08 9 a place to build it. We call that cost of goods sold.  
02:08 10 And in cost of goods sold you have the materials, the  
02:08 11 labor and the manufacturing overhead.

02:08 12 Once they build it, they have to ship it to  
02:08 13 their customers, which means they have to package it.  
02:08 14 I saw Dr. Nourbakhsh up here earlier, and he was  
02:09 15 holding a drone. They can't ship a drone without a  
02:09 16 box, without putting it on a truck, without putting it  
02:09 17 on a plane, and there's a cost to that. And he didn't  
02:09 18 subtract that cost either.

02:09 19 There's also operating costs, and those are  
02:09 20 costs of the leadership. It's the cost of assisting  
02:09 21 and managing all of these processes that we're seeing,  
02:09 22 including R&D, cost to manufacture, shipping costs.

02:09 23 And then finally we heard from Mr. Oshauna a  
02:09 24 day or so ago, and he talked about his efforts to sell  
02:09 25 these products to Apple. Well, he would be part of the

02:09 1 marketing and selling expenses. So they have to go to  
02:09 2 market. You might find this product in a Best Buy. So  
02:09 3 somebody has to market it to Best Buy, market it to  
02:09 4 Apple, put it on the website.

02:09 5 All of those costs are the costs that have to  
02:09 6 follow the revenue. So if you're going to identify  
02:09 7 [REDACTED] in sales, you can't just subtract the  
02:09 8 costs of three softwares that they don't sell alone.  
02:10 9 They sell them on a drone. So you have to get all  
02:10 10 these costs.

02:10 11 And when I evaluated the costs, I identified  
02:10 12 [REDACTED] as the cost to manufacture and sell UAVs  
02:10 13 or drones.

02:10 14 Q. And I think you mentioned a couple of DJI  
02:10 15 financial documents. If you can quickly turn in your  
02:10 16 binder, I'd just like you to confirm a couple of things  
02:10 17 quickly.

02:10 18 The first is, if you could please turn to  
02:10 19 Tab PTX-74, which has already been admitted into  
02:10 20 evidence.

02:10 21 A. Yes.

02:10 22 Q. Is this one of the DJI financial documents  
02:10 23 that you reviewed?

02:10 24 A. Yes. This is some of the documents I spoke  
02:10 25 with Ms. Huang about.

02:10 1 Q. Okay. Great. And then -- thank you.

02:10 2 If you would please also turn to Tab PTX-77,

02:10 3 which has also been admitted into evidence already.

02:10 4 A. Yes.

02:10 5 Q. Okay. And is this also one of the DJI

02:10 6 financial documents that you reviewed in forming your

02:10 7 opinions?

02:11 8 A. Yes, ma'am. It is.

02:11 9 Q. Okay. In your opinion, if Mr. Andrien had

02:11 10 accounted for these manufacturing and sales costs that

02:11 11 you just identified, what impact would this have had on

02:11 12 his overall damages analysis or number?

02:11 13 A. So if we can pull up my next slide, what I did

02:11 14 is I took Mr. Andrien's calculations of 367.6 million

02:11 15 and I adjusted for the costs that he did not remove

02:11 16 related to the manufacturing of the drone.

02:11 17 And when I did that, it corrected

02:11 18 Mr. Andrien's damages number to be [REDACTED]

02:11 19 Q. So then let's turn to your next disagreement

02:11 20 and just keep walking through them.

02:11 21 Could you please explain for the jury what you

02:11 22 mean by failed to apply Textron's own profit split

02:11 23 approach?

02:11 24 A. Sure.

02:11 25 So I mentioned earlier that I'm really looking

02:12 1 for the proper way to apportion. One way to apportion  
02:12 2 is to subtract out the proper costs, which we just  
02:12 3 talked about. And now I'm looking at something called  
02:12 4 what's the appropriate profit split.

02:12 5 And what we're really saying there is, once  
02:12 6 you get to a profit number, how much should go to the  
02:12 7 patent owner and how much should go to the licensee in  
02:12 8 this case.

02:12 9 Q. Okay. And what did you review to understand  
02:12 10 what Textron's own profit split approach would be?

02:12 11 A. Earlier in my testimony I mentioned that I  
02:12 12 reviewed both Textron and DJI documents. These are  
02:12 13 some of the Textron documents that I looked at and  
02:12 14 wanted to make sure that I took into account Textron's  
02:12 15 position in this case.

02:12 16 If we would go to the next slide, please.

02:12 17 So as part of Textron's normal course of  
02:12 18 business, they perform analyses whenever they are  
02:12 19 entering into a licensing negotiation with a third  
02:13 20 party, and they produced that information so that I  
02:13 21 could evaluate each and every one of those documents.

02:13 22 And it would take a very long time to show you  
02:13 23 all of them. So what I've tried to do is show you some  
02:13 24 from before the hypothetical negotiation -- remember,  
02:13 25 that was in 2015 -- before the hypothetical

02:13 1 negotiation, at or around the time of the hypothetical  
02:13 2 negotiation and then after the hypothetical negotiation  
02:13 3 so you could make your own determination.

02:13 4 So this is one of those files. And if you've  
02:13 5 ever used Excel, it's an Excel workbook with various  
02:13 6 worksheets in it. And across the bottom, you'll see  
02:13 7 this particular spreadsheet.

02:13 8 And the thing I would point you to first is,  
02:13 9 up at the top, you'll see it's 2010. So this is before  
02:13 10 the hypothetical negotiation. And you'll see here they  
02:13 11 identify what they believe is a fair share. They say:  
02:14 12 IP value estimated as a "fair share" of potential  
02:14 13 buyer/licensee's profit.

02:14 14 Now, remember, the buyer/licensee is the one  
02:14 15 who's licensing the technology from Textron. So it's  
02:14 16 very similar to what we have in this case. It would be  
02:14 17 DJI licensing from Textron.

02:14 18 And under analysis methodology, they say --  
02:14 19 under the profit split approach, they want to identify  
02:14 20 what the fair share is.

02:14 21 Over here on the right, this is where they  
02:14 22 start. They begin with a baseline profit split of  
02:14 23 25 percent. Again, this is their normal course of  
02:14 24 business.

02:14 25 And then they make some adjustments to this.

02:14 1 And those adjustments are related to technology risks,  
02:14 2 development cost risks, manufacturing cost risks,  
02:14 3 market/sales risk and political risks. And then at the  
02:14 4 end, they identify what the royalty rate would be.

02:14 5 In this particular situation, they started  
02:14 6 with 25 percent and they adjusted downward. And you'll  
02:15 7 see that happens down here. They identify what the  
02:15 8 adjustments are going to be.

02:15 9 They start here at medium, and then they  
02:15 10 adjust either down to low or very low or up to high or  
02:15 11 very high. And based upon those adjustments here, they  
02:15 12 made an adjustment down for development cost risks and  
02:15 13 an adjustment down for market and sales risk.

02:15 14 Ultimately, 25 minus the 10 is 15, and that's  
02:15 15 what they determined would be a risk-adjusted profit  
02:15 16 split rate.

02:15 17 So according to Textron, they would use that  
02:15 18 15 percent and multiply that times the profit to give a  
02:15 19 profit split. It would be 15 percent to Textron and  
02:15 20 85 percent to the licensee.

02:15 21 Q. And this is from Defendants' Exhibit 253; is  
02:15 22 that correct?

02:15 23 A. That is correct.

02:15 24 Q. Okay.

02:15 25 A. And if we go to the next slide. I told you

02:16 1 that I was going to show you one at the time of the  
02:16 2 hypothetical negotiation. This is 2015.

02:16 3 You'll recall -- this is a different workbook  
02:16 4 with a different set of worksheets. They're doing the  
02:16 5 fair-share discussion here. Under the methodology,  
02:16 6 they want to do a fair share.

02:16 7 Over here, their normal course of business,  
02:16 8 start with 25 percent, and then they're going to adjust  
02:16 9 it for the same five factors. Here they adjusted down  
02:16 10 3, 3, 3 and 3 respectively. And you'll see that down  
02:16 11 here.

02:16 12 And then, ultimately, they came up with this  
02:16 13 13 percent. And similarly to the 2010 example, that  
02:16 14 would be 13 percent to Textron and the balance to the  
02:16 15 licensee.

02:16 16 Q. And this is from Defendants' Exhibit 816,  
02:16 17 which has also been admitted into evidence, correct?

02:16 18 A. That's correct.

02:16 19 Q. Okay. And for good measure, let's do one  
02:17 20 more. I think you mentioned one from recent times as  
02:17 21 well.

02:17 22 A. Sure.

02:17 23 So I know that I'm showing you three of these,  
02:17 24 but I thought it would make sense to give you a  
02:17 25 perspective of the normal-course-of-business nature of

02:17 1 these documents, the fact that they were done in 2010,  
02:17 2 in 2015 and 2022.

02:17 3 You'll see it's the same consideration. We  
02:17 4 have a fair share. Textron starts with 25 percent in  
02:17 5 the ordinary course of business. Here they make  
02:17 6 adjustments: -5, -5, -5 and -5. So four out of the  
02:17 7 five things that they have evaluated, and you'll note  
02:17 8 that those are over here.

02:17 9 And here, they're at 45 percent. So they  
02:17 10 adjust down and they adjust up, but they're always  
02:17 11 starting at this 25 percent baseline, and then they're  
02:17 12 adjusting for various factors after that.

02:18 13 And as I mentioned earlier, these documents,  
02:18 14 which are Textron's own documents in the normal course  
02:18 15 of business, Mr. Andrien didn't evaluate these. He  
02:18 16 didn't incorporate these into his report.

02:18 17 And from the perspective of a hypothetical  
02:18 18 negotiation between a willing buyer and a willing  
02:18 19 seller, what we're called to do as independent experts  
02:18 20 is look at what each party would evaluate happening at  
02:18 21 that hypothetical.

02:18 22 And it's my position that the baseline profit  
02:18 23 split of 25 percent would be what Textron would  
02:18 24 consider because that's the policy, that's the  
02:18 25 procedure they followed throughout time.

02:18 1 Q. And this slide is from Defendants'  
02:18 2 Exhibit 199; is that correct?

02:18 3 A. Yes.

02:18 4 Q. Okay. And you said you reviewed a number of  
02:18 5 Textron documents.

02:18 6 So approximately how many Textron documents  
02:18 7 did you see this 25 percent baseline profit split rate?

02:18 8 A. So I saw -- there were 61 total documents, and  
02:19 9 by "documents," I mean 61 different workbooks with  
02:19 10 these types of worksheets in them. They had 25 percent  
02:19 11 as the baseline profit split in those 61 documents.

02:19 12 What this tells me is it's a normal course of  
02:19 13 business. It's something that they evaluate internally  
02:19 14 as they're determining what an appropriate profit split  
02:19 15 would be for a negotiation with a licensee.

02:19 16 Q. And in any of those 61 documents, those  
02:19 17 exemplary documents that you reviewed, did you ever see  
02:19 18 a profit split up to [REDACTED] as Mr. Andrien has  
02:19 19 proposed in this case?

02:19 20 A. I didn't. And interestingly enough, if you  
02:19 21 look at the way the model was built, it wouldn't even  
02:19 22 allow you to go as high as [REDACTED].

02:19 23 The highest it would ever go is 55 percent.  
02:19 24 And again, I think had Mr. Andrien looked at this, he  
02:19 25 might have been guided at least by the principles that

02:19 1 they follow internally in the ordinary course of  
02:19 2 business.

02:20 3 What I'm showing here is 13 percent was the  
02:20 4 lowest one I showed you, 45 percent is the highest one  
02:20 5 I showed you, but to be fair, in full disclosure, I saw  
02:20 6 some as low as 11 percent at the end of the day and as  
02:20 7 high as 55 percent at the end of the day.

02:20 8 Q. And how long has Textron, based on the  
02:20 9 documents that you've reviewed, been using this 25  
02:20 10 baseline profit split approach?

02:20 11 A. If you'd advance the slide.

02:20 12 The first document that I saw using this  
02:20 13 approach was 2009, and it has continued every year  
02:20 14 through 2022. So as early as -- or late as last year,  
02:20 15 in 2022, they were following this normal course of  
02:20 16 business practice, and so I thought it was at least  
02:20 17 relevant to incorporate into my analysis.

02:20 18 Q. And I believe you mentioned this earlier, but  
02:20 19 did Mr. Andrien consider any of these documents or this  
02:20 20 25 percent baseline profit split in his approach?

02:21 21 A. He didn't. And again, it's -- there's always  
02:21 22 valuator judgment involved in what we do, but I have to  
02:21 23 ask myself if I'm really putting together what parties  
02:21 24 are thinking at the time of a hypothetical negotiation.  
02:21 25 I can't ignore their standard normal course of business

02:21 1 documents.

02:21 2 Q. And if Mr. Andrien had considered the --  
02:21 3 Textron's basic baseline profit split practice, what  
02:21 4 impact would this have had on his damages number?

02:21 5 A. You'd have to advance the slide, please.

02:21 6 So what I ended up doing here is I took  
02:21 7 Mr. Andrien's 367 million and I adjusted it for  
02:21 8 costs -- we talked about that just a few minutes ago --  
02:21 9 to [REDACTED]. And then I adjusted that based upon

02:21 10 the profit split of 25 percent, and I got [REDACTED].

02:21 11 And so that would be -- I beg your pardon.

02:22 12 That would be correcting both for the costs that  
02:22 13 weren't deducted as well as the ordinary course of  
02:22 14 business 25 percent profit split that Textron uses  
02:22 15 internally.

02:22 16 Q. And is that the end of your disagreements with  
02:22 17 Mr. Andrien's opinion?

02:22 18 A. No. It's not.

02:22 19 Q. Would you please explain to the jury what you  
02:22 20 mean by Mr. Andrien failed to consider DJI's  
02:22 21 innovations to drones?

02:22 22 A. So at the risk of being a clangy cymbal,  
02:22 23 again, apportionment is not something that we're asked  
02:22 24 to do. It's not something that someone says it would  
02:22 25 be a good idea. It's something that we are required to

02:22 1 do, because we can't value more than just the patent at  
02:22 2 issue. We're valuing what that specific asset is.  
02:22 3 And the approach that Mr. Andrien used is  
02:22 4 improper because it incorporates other technologies  
02:23 5 outside of the patent at issue based upon his use of a  
02:23 6 percentage royalty rate.

02:23 7 And I'm going to take my time and try to  
02:23 8 explain this as best I can because I think it's  
02:23 9 extremely important.

02:23 10 Q. So do you have an example then you'd like to  
02:23 11 walk us through?

02:23 12 A. I do. If you were considering drones and you  
02:23 13 had one drone that had a very baseline level of  
02:23 14 feature, very few features on it, and it was, say, a  
02:23 15 hundred dollar drone. And then you had -- excuse me --  
02:23 16 but one feature it did have was hover.

02:23 17 And over here in this hand you had a high-end  
02:23 18 drone. This is a \$1,000 drone over here, and it is  
02:23 19 chock full of additional features. It's made with  
02:23 20 better -- it's made with better equipment. It's got a  
02:23 21 bigger engine in it. It's got bigger propellers in it.  
02:24 22 It's got better lights on it. It makes a cooler sound.  
02:24 23 But it also has hover in it.

02:24 24 What Mr. Andrien has done is he's used a  
02:24 25 percentage royalty rate. Let's just assume I say it's

02:24 1 10 percent. He takes 10 percent, multiplies it times  
02:24 2 the \$100 drone and says, okay, I've got \$10.

02:24 3 He takes that same 10 percent and multiplies  
02:24 4 it times a \$1,000 drone, but what we know when that  
02:24 5 happens is 10 percent times \$1,000 is \$100, but that 10  
02:24 6 percent is taking some of every other feature and  
02:24 7 benefit in that drone.

02:24 8 Because that drone has a bunch of additional  
02:24 9 features in it. It's got better propellers. It's got  
02:24 10 a bigger motor. It's faster. It does all kinds of  
02:24 11 cool stuff that bigger, better drones do. And when you  
02:24 12 apply that 10 percent to that drone and get \$100, it's  
02:24 13 not only taking a portion of hover, it's taking a  
02:25 14 portion of every other dollar associated with that  
02:25 15 additional \$90 of other features.

02:25 16 MS. KESTLE: Ryan, if you'll please  
02:25 17 display Defendants' Exhibit 521. This will just be a  
02:25 18 demonstrative.

02:25 19 And then if we could turn, please --  
02:25 20 thank you -- to Page 3.

02:25 21 BY MS. KESTLE:

02:25 22 Q. And, Mr. Schoettelkotte, do you recognize this  
02:25 23 document?

02:25 24 A. Yes. This is Schedule 4.2 of my report.

02:25 25 Q. Okay. And what is this document showing?

02:25 1 A. This shows the weighted average price of  
02:25 2 different drone series that are offered by DJI.

02:25 3 Q. And how is this relevant to the analysis or  
02:25 4 the example that you were just walking us through?

02:25 5 A. If it would be possible to take the product  
02:25 6 series labels and blow them up, as well as the total  
02:25 7 weighted average prices and blow them up and bring them  
02:26 8 together? Thank you.

02:26 9 So I gave you an example a few minutes ago  
02:26 10 where if you have different priced drones and you apply  
02:26 11 the same percentage royalty rate, you get vastly  
02:26 12 different numbers. And that's because the higher  
02:26 13 priced drones have more features than the lower priced  
02:26 14 drones do.

02:26 15 And so what Mr. Andrien did is he looked at  
02:26 16 the various products with each -- within each one of  
02:26 17 these series that was alleged to have infringed. And  
02:26 18 so if you just take the first two, if you look at the  
02:26 19 AGRAS, which is \$5,079 versus the FPV, which is 885,  
02:26 20 you might ask yourself, well, I wonder why there's such  
02:26 21 a big price difference between those?

02:26 22 And the reason is because those drones offer  
02:27 23 such a significantly different stable of features and  
02:27 24 benefits. The FPV drone is much more modest. The  
02:27 25 AGRAS is used to go ahead and seed farms and drop seeds

02:27 1 and drop fertilizer. It's enormous.

02:27 2 But when Mr. Andrien uses his royalty rate, he  
02:27 3 applies the same royalty rate to 885 that he does to  
02:27 4 5079. So he's taking a portion of all the other  
02:27 5 features and benefits with that percentage, because  
02:27 6 that's how percentages work.

02:27 7 There's a way to fix this, though that's an  
02:27 8 acceptable methodology that I have used here and peers  
02:27 9 of mine have used as well, and it's called looking at  
02:27 10 the lowest cost accused product.

02:27 11 MS. KESTLE: Ryan, if you'll please turn  
02:27 12 back to the demonstrative.

02:27 13 BY MS. KESTLE:

02:28 14 Q. And have you prepared a slide to share with  
02:28 15 the jury about the lowest average selling price that  
02:28 16 you were just describing?

02:28 17 A. Yes. I have.

02:28 18 Q. Okay.

02:28 19 A. So what I've sought to do -- and, Ryan, if you  
02:28 20 have the ability to highlight with me, I'd really  
02:28 21 appreciate that. If we look at the feature and we  
02:28 22 highlight "Follow Me."

02:28 23 So I said to myself, I need to find the lowest  
02:28 24 priced drone that uses Follow Me, and so I identified  
02:28 25 Phantom 3 Standard/3C.

02:28 1 If you highlight that, please.  
02:28 2 And that drone sells for \$364. What I know  
02:28 3 about this is that that drone has the '909 features in  
02:28 4 it. So it's going to have Follow Me in it. It's got  
02:28 5 this feature Follow Me in it.

02:28 6 And as a result of that, when we calculate the  
02:28 7 royalty, after making all the other adjustments to  
02:29 8 costs, we subtract the appropriate costs, we make the  
02:29 9 right profit adjustment, and then we use the lowest  
02:29 10 priced drone, the royalty rate is [REDACTED] per unit.

02:29 11 Now, it doesn't matter if you add additional  
02:29 12 features to the next drone. We've already valued what  
02:29 13 Follow Me is worth. When you add another feature, the  
02:29 14 royalty rate shouldn't get a part of that other feature  
02:29 15 because it's not accused. We're just apportioning down  
02:29 16 to the feature at issue.

02:29 17 We did the same thing for ActiveTrack. We  
02:29 18 identified Spark. Spark is the -- it's the drone  
02:29 19 offered by DJI that uses ActiveTrack and is at the  
02:29 20 lowest price. So we know when we make the same  
02:29 21 adjustments, when we get to [REDACTED], the value of  
02:30 22 ActiveTrack to that product is never going to be higher  
02:30 23 than that. Because any price increases that happened  
02:30 24 on another drone are not going to be related to that  
02:30 25 feature.

02:30 1           And then finally, we did the same thing with  
02:30 2 Hover. Here we identified the Tello product. It had  
02:30 3 an average selling price of \$86. And we identified a  
02:30 4 royalty rate, after making all the same adjustments, of  
02:30 5 [REDACTED].

02:30 6 Q.       Okay. So then what happens when you apply  
02:30 7 that adjusted royalty rate in this case?

02:30 8 A.       If we could go to the next slide.

02:30 9           So on the left you see the feature: Follow  
02:30 10 Me, ActiveTrack and Hover, and you see the accused  
02:30 11 units.

02:30 12           So for Follow Me, there were [REDACTED] accused  
02:30 13 units, and I've applied a royalty of [REDACTED] to that  
02:30 14 based upon our calculations a moment ago. Total  
02:30 15 damages would result in [REDACTED]

02:31 16           For ActiveTrack, we identified  
02:31 17 [REDACTED] units. We apply a royalty of [REDACTED] based  
02:31 18 upon the way that we calculated it a moment ago, and  
02:31 19 that results in [REDACTED], which would yield a total  
02:31 20 corrected royalty damages of [REDACTED] for the '909  
02:31 21 patent.

02:31 22           And then for Hover, we identified the accused  
02:31 23 units of [REDACTED]. Based upon the discussion we had a  
02:31 24 moment ago, we identified a royalty rate of [REDACTED]. We  
02:31 25 multiply those together, and we get total damages of

02:31 1 [REDACTED]  
02:32 2 And so collectively for the '909 and the '752,  
02:32 3 when you use the lowest priced drone which factors out  
02:32 4 all the other features that are not at issue in this  
02:32 5 case, these are figures that I've identified.

02:32 6 Q. And so then what impact, Mr. Schoettelkotte,  
02:32 7 does this have adjusting Mr. Andrien's opinion?

02:32 8 A. Taking the next step after making corrections  
02:32 9 for the costs that Mr. Andrien didn't deduct, using the  
02:32 10 profit split that Textron uses in the ordinary course  
02:32 11 of business and correcting for the lowest priced drone  
02:32 12 that uses the accused technology, it yields a corrected  
02:32 13 damages amount of [REDACTED]

02:32 14 Q. And I believe there's still one more  
02:32 15 disagreement to walk through; is that correct?

02:32 16 A. That is correct.

02:32 17 Q. Okay. And will you explain to the jury what  
02:32 18 you mean by Mr. Andrien failed to consider cost of  
02:32 19 alternative designs?

02:32 20 A. So we spoke about this earlier. I think I  
02:33 21 gave the example of you have a choice if you were going  
02:33 22 to take the bus or drive to work, park in a parking lot  
02:33 23 or pay for a bus ride.

02:33 24 We all face alternatives. And companies,  
02:33 25 certainly high-tech companies like DJI, they have

02:33 1 ability to modify software such that they have an  
02:33 2 alternative design. And we heard Dr. Nourbakhsh talk  
02:33 3 about various of those alternative designs that were  
02:33 4 available for both the '909 and '752 patents.

02:33 5                 And so as part of my work in this case, I  
02:33 6 spoke with Dr. Nourbakhsh about what those alternatives  
02:33 7 would look like. I also spoke with personnel at DJI, a  
02:33 8 gentleman by the name of Mr. Ai, who explained to me  
02:33 9 what the costs would be in order to make these  
02:33 10 modifications. I also read his deposition which  
02:33 11 identified for me the same.

02:33 12                 And I've taken all that information, not only  
02:34 13 the understanding that there are alternative designs,  
02:34 14 but also how much time it would take and what the costs  
02:34 15 to implement that alternative design would be.

02:34 16                 And I prepared a slide to share that with the  
02:34 17 jury.

02:34 18 Q.                 Is the cost of alternative designs, in your  
02:34 19 understanding, something that Textron also considers  
02:34 20 when valuing IP?

02:34 21 A.                 It is.

02:34 22 Q.                 Okay. And how do you know that?

02:34 23 A.                 If we go to the next slide.

02:34 24                 So in those workbooks with the worksheets,  
02:34 25 we've been talking about -- earlier we'd been talking

02:34 1 about this profit split approach, but they also look at  
02:34 2 something called the development cost approach, which  
02:34 3 is exactly the same as an alternative design.

02:34 4 And what they say here is intellectual  
02:34 5 property value estimated as cost a potential -- or  
02:34 6 buyer -- a potential buyer/licensee would incur -- and  
02:35 7 this is important -- to independently develop a legal  
02:35 8 alternative to existing IP.

02:35 9 And that's what high-technology companies like  
02:35 10 DJI do, and Textron recognizes that as well.

02:35 11 Q. And is this something that financial experts  
02:35 12 regularly consider when valuing patents?

02:35 13 A. It is. One of the things that I noted in  
02:35 14 Mr. Andrien's report, and I would be paraphrasing, he  
02:35 15 identified the fact that to the extent that there is an  
02:35 16 alternative design that is available, it would be a  
02:35 17 significant data point for the parties to consider.  
02:35 18 And even moreover, it can be a limiter to what parties  
02:35 19 would be willing to pay.

02:35 20 Because if a damages ask was so high,  
02:35 21 companies would redesign away from the accused  
02:36 22 technology to an alternative design at a reasonable  
02:36 23 price at a reasonable time period. And that's, I  
02:36 24 think, what Textron is identifying here. And  
02:36 25 Mr. Andrien has identified it as well.

02:36 1 Q. Is the cost approach something relevant to  
02:36 2 consider in this case?

02:36 3 A. It is, yes.

02:36 4 Q. Okay. And why is that?

02:36 5 A. If we look at what I've learned in this case,  
02:36 6 really there's two things. One is we understand that  
02:36 7 it would be available at the time of the hypothetical  
02:36 8 negotiation.

02:36 9 And what that means is that according to  
02:36 10 Dr. Nourbakhsh, all of the information necessary, the  
02:36 11 technical understanding, would be available for DJI to  
02:36 12 make the proper adjustments to their software in order  
02:36 13 to implement an alternative design.

02:36 14 And then secondarily, the costs associated  
02:36 15 with implementing that redesign would be consistent  
02:37 16 with the costs that programmers would identify as  
02:37 17 reasonable. In this case, it was approximately one  
02:37 18 month of time for both patents.

02:37 19 And then lastly, I understand from  
02:37 20 Dr. Nourbakhsh that these alternatives would be  
02:37 21 acceptable in the marketplace for the reasons that he  
02:37 22 stated.

02:37 23 Q. And how do you determine the specific costs  
02:37 24 for the alternative designs available in this case?

02:37 25 A. So as part of my work, I spoke with Mr. Ai

02:37 1 from DJI, and he explained to me the various costs that  
02:37 2 would be relevant in order to make or implement a  
02:37 3 redesign. I spoke with Dr. Nourbakhsh, and he  
02:37 4 explained to me that it would take a month for each  
02:37 5 patent to redesign.

02:37 6 And I used both the salaries of a programmer  
02:38 7 and the salaries of a tester, meaning to QC the  
02:38 8 process, and their benefits for a fully-loaded cost to  
02:38 9 identify what the cost of those alternatives would be.

02:38 10 And in 2015 in April, at the time of the first  
02:38 11 hypothetical negotiation, the cost to redesign was  
02:38 12 [REDACTED] and the cost of testing was [REDACTED]. The total  
02:38 13 cost per the series was [REDACTED].

02:38 14 Similarly in October of 2015, at the second  
02:38 15 hypothetical negotiation, the cost to design was  
02:38 16 [REDACTED]. The cost of testing was [REDACTED]. And the cost  
02:38 17 per series was [REDACTED].

02:38 18 And when I say "the cost of the series," what  
02:38 19 I'm getting at is that they would have to make that  
02:39 20 same adjustment to more than one series of drone.  
02:39 21 Because they have more than one series, they would need  
02:39 22 to adjust more than one of those.

02:39 23 But the range of alternatives, [REDACTED] in  
02:39 24 April 2015, and [REDACTED] in October 2015.

02:39 25 Q. And so what do you do next after you've

02:39 1 determined that cost per series?

02:39 2 A. If we go to the next slide, please.

02:39 3 So here, as I mentioned, there are various  
02:39 4 series. We understand for the '909 patent there would  
02:39 5 be one drone series that would need to be modified. So  
02:39 6 one drone series times [REDACTED], the cost of this  
02:39 7 alternative would be the same, [REDACTED]. That would be  
02:39 8 for the '909 patent.

02:39 9 For the '752 patent, there are three series.  
02:39 10 For those three series, the cost per series would be  
02:39 11 [REDACTED]. When I do that multiplication, I get to [REDACTED]  
02:40 12 for a total of [REDACTED].

02:40 13 Now, importantly, as part of my work in this  
02:40 14 case, I think I mentioned I had an opportunity to  
02:40 15 review Dr. -- or excuse me -- Mr. Andrien's report.

02:40 16 As part of his report, you may recall he  
02:40 17 talked about the cost to program in a design-around --  
02:40 18 I beg your pardon.

02:40 19 He talked about the cost to program in a  
02:40 20 software. So very similar to what I'm calculating up  
02:40 21 top, he talked about how costly it would be to make a  
02:40 22 software change in a drone series.

02:40 23 And you'll see here in Mr. Andrien's report,  
02:40 24 he was somewhat higher than the estimate that was  
02:40 25 provided to me. He identified it as [REDACTED] for the

02:40 1 '909 patent, and for the '752, [REDACTED] for a total  
02:41 2 of [REDACTED].

02:41 3 And a moment ago I mentioned that he  
02:41 4 identified a higher value. You may recall in his  
02:41 5 testimony, I believe he was told that it would be  
02:41 6 approximately 200 hours of time. And he said, well,  
02:41 7 I'll just be conservative, and I'll bump it up to  
02:41 8 500 hours.

02:41 9 I think that's the reason it's so much higher  
02:41 10 because he doubled a number that, you know, he had  
02:41 11 identified originally. Had he not doubled the number,  
02:41 12 I think we would've been almost lockstep in what we  
02:41 13 were trying to anticipate there, even though I just  
02:41 14 used that as a way to check, if you will, the  
02:41 15 reasonableness of the alternative amounts that I got  
02:41 16 from both DJI and Dr. Nourbakhsh.

02:41 17 Q. And what impact would considering the costs of  
02:41 18 these alternative designs have on Mr. Andrien's  
02:41 19 analysis?

02:41 20 A. So again, this isn't necessarily a correction  
02:41 21 to the 367, but what it shows is, is that if DJI were  
02:42 22 to implement a noninfringing alternative, the total  
02:42 23 cost of that noninfringing alternative for the series  
02:42 24 that we've just discussed would be [REDACTED].

02:42 25 And both myself, Mr. Andrien, as well as

02:42 1 Textron, have identified that the cost of alternatives  
02:42 2 is a valid and appropriate way to value technology.

02:42 3 Q. And how does the cost of alternative designs  
02:42 4 limit a damage award?

02:42 5 A. Doesn't necessarily limit it. What it does  
02:42 6 is, is it provides a data point that parties would look  
02:42 7 at to determine what would be reasonable to pay. It's  
02:42 8 not a limiter. It just identifies what parties would  
02:42 9 be reasonable to pay.

02:42 10 Q. So we've walked through a number of  
02:42 11 adjustments that you've made to Mr. Andrien's analysis.

02:42 12 And before we wrap up this afternoon, would  
02:42 13 you just briefly summarize those opinions for the jury?

02:42 14 A. So as part of my work here, I've identified  
02:43 15 alternative design costs for the '909 and '752 patent  
02:43 16 as [REDACTED] for the '909 patent, and [REDACTED] for the '752  
02:43 17 patent.

02:43 18 And after making corrections to Mr. Andrien's  
02:43 19 calculations, I've identified [REDACTED] for the '909  
02:43 20 patent and [REDACTED] for the '752 patent.

02:43 21 Q. And given the adjustments that you've made to  
02:43 22 Mr. Andrien's numbers and the failures we've talked  
02:43 23 about today, do you think his analysis results in a  
02:43 24 reasonable royalty award?

02:43 25 A. I don't. I -- reasonable royalties are

02:43 1 supposed to be -- they're supposed to be reasonable to  
02:43 2 both parties, where you're taking into account the  
02:43 3 considerations of both the licensee and the licensor.

02:43 4 And as we've talked about today, I believe  
02:43 5 that Mr. Andrien either left out certain information,  
02:43 6 certainly Textron's own documents, but in addition, he  
02:44 7 also failed to properly apportion out many of the  
02:44 8 features that are on these higher-priced drones that  
02:44 9 otherwise should have been apportioned out to avoid  
02:44 10 taking more than just the footprint of the technology  
02:44 11 in the marketplace.

02:44 12 Q. And to briefly circle back what we discussed  
02:44 13 at the very beginning, if the jury finds that the  
02:44 14 patents are invalid or not infringed, what damages are  
02:44 15 owed?

02:44 16 A. So again, my opinions and Mr. Andrien's  
02:44 17 opinions, they're only relevant if the jury finds  
02:44 18 validity and infringement.

02:44 19 I understand that Dr. Nourbakhsh has concluded  
02:44 20 that the DJI drones do not infringe either the '909 or  
02:44 21 the '752 patents and both the '909 and '752 patents are  
02:44 22 invalid.

02:44 23 If that was the case, again, my analysis would  
02:44 24 not be necessary. The jury could dismiss my analysis  
02:45 25 and Mr. Andrien's analysis because there would be no

02:45 1 damages.

02:45 2 Q. Thank you, Mr. Schoettelkotte.

02:45 3 A. You're welcome.

02:45 4 MS. KESTLE: Your Honor, we pass the  
02:45 5 witness.

02:45 6 CROSS-EXAMINATION

02:45 7 BY MR. PANKRATZ:

02:45 8 Q. Good afternoon, Mr. Schoettelkotte.

02:45 9 A. Good afternoon.

10 Q. My name is Kirk Pankratz. I'm counsel for  
02:45 11 plaintiff Bell Textron.

02:45 12 (Clarification by Reporter.)

09:42 13 (Sealed proceedings end.)

02:45 14 BY MR. PANKRATZ:

02:45 15 Q. You and I have something in common, which is  
02:45 16 tough last names to say and spell.

02:45 17 A. Yeah. I can feel that a little bit.

02:45 18 Q. Now, you are here to address damages issues in  
02:45 19 this case, right, sir?

02:45 20 A. Yes. I am.

02:45 21 Q. And as you let the jury know, you're basically  
02:45 22 the counterpart to the expert, Mr. Andrien, who  
02:45 23 testified in Bell's case, right, sir?

02:46 24 A. I guess I don't consider myself a counterpart.  
02:46 25 I consider myself an independent expert who was asked

02:46 1 to come in and value technology, as well as review his  
02:46 2 report.

02:46 3 Q. Right. You and Mr. Andrien agree on some  
02:46 4 things, fair?

02:46 5 A. Yeah. I'd have to think about it, but yeah.  
02:46 6 I think there's probably a few things we do agree on.

02:46 7 Q. Well, you and Mr. Andrien both agree that to  
02:46 8 calculate damages in this case, you must look to a  
02:46 9 hypothetical negotiation, right?

02:46 10 A. I agree with that.

02:46 11 Q. And both of you agree that in this case there  
02:46 12 would be two separate hypothetical negotiations to look  
02:46 13 at, right?

02:46 14 A. Yes. That would be in April and October of  
02:46 15 2015.

02:46 16 Q. And the April hypothetical negotiation would  
02:46 17 be for the '909 patent, right, sir?

02:46 18 A. That's my understanding.

02:46 19 Q. That's the patent that we've heard called the  
02:46 20 Follow Me patent?

02:47 21 A. Follow Me or ActiveTrack, I think, is what  
02:47 22 it's been called.

02:47 23 Q. And then the other hypothetical negotiation  
02:47 24 would take place in what day?

02:47 25 A. October 2015.

02:47 1 Q. And that's for the '752 patent?

02:47 2 A. Yes. That's correct.

02:47 3 Q. The one that we've heard referred to as the

02:47 4 hover hold, right?

02:47 5 A. Yes.

02:47 6 Q. Now, you and Mr. Andrien are all in agreement

02:47 7 on that, right?

02:47 8 A. I believe that's correct.

02:47 9 Q. And you and Mr. Andrien also both agree that,

02:47 10 for damages purposes, you must assume that the patents

02:47 11 are valid and infringed, right?

02:47 12 A. Yes. That's correct.

02:47 13 Q. And at that hypothetical negotiation, DJI

02:47 14 would come to the table assuming valid and infringed

02:47 15 patents, right?

02:47 16 A. Yes.

02:47 17 Q. And then the other assumption from the Bell

02:47 18 perspective is: No matter how distasteful they may

02:47 19 think a deal is in real life, you have to assume that

02:47 20 Bell comes to the table as a willing licensor?

02:48 21 A. That's correct. A willing licensee, a willing

02:48 22 licensor, looking at all documents as we talked about.

02:48 23 Q. Now, damages, I think you and Mr. Andrien have

02:48 24 both explained to the jury, those are effectively if

02:48 25 there is infringement, if the patents are valid, that's

02:48 1 the number that the jury will need to award to  
02:48 2 compensate Bell for DJI's use of its patented  
02:48 3 technology, right?

02:48 4 A. I missed just the first part of that question.  
02:48 5 And if I could ask you to just give it to me again, I  
02:48 6 would appreciate it. Thank you.

02:48 7 Q. I think it was kind of long so I'll break it  
02:48 8 down.

02:48 9 A. That's -- that's what I meant, and I  
02:48 10 apologize. Thank you.

02:48 11 Q. No worries.

02:48 12 At the conclusion of our evidence and after  
02:48 13 the Judge charges the jury and they hear closing,  
02:48 14 they'll go back to deliberate and they'll receive a  
02:48 15 verdict form, right?

02:48 16 A. That is my understanding of the Court's  
02:48 17 process, if you will, in general. I wouldn't pretend  
02:48 18 to know exactly, but I believe that may be true.

02:49 19 Q. They'll be asked to determine whether they  
02:49 20 conclude and agree that DJI is infringing on the '752  
02:49 21 and '909, right?

02:49 22 A. That is correct.

02:49 23 Q. And they'll have boxes to check for that?

02:49 24 A. They will have a jury verdict form.

02:49 25 Q. And on that verdict form, they'll also have to

02:49 1 decide whether the patents are valid, right?

02:49 2 A. That's my understanding. Yes.

02:49 3 Q. And if they agree that there is infringement  
02:49 4 of valid patents, they'll have a line for each patent  
02:49 5 where they need to write in the amount of damages that  
02:49 6 are owed to Bell?

02:49 7 A. If that's what the parties to this case agree  
02:49 8 to in terms of the form of the verdict form, I haven't  
02:49 9 seen it. But in general, that's my understanding, if  
02:49 10 the parties agree to some form of a verdict form and  
02:49 11 the Judge approves of it.

02:49 12 Q. I actually think the Judge has told us we're  
02:49 13 going to have two lines on there.

02:49 14 A. Then I would take your word for it.

02:49 15 Q. So Mr. Andrien has proposed numbers to assist  
02:49 16 the jury and said, these are the numbers I have  
02:50 17 calculated, and it is my affirmative opinion that these  
02:50 18 are the numbers that should go on each of those lines,  
02:50 19 right?

02:50 20 A. That's my understanding. Yes.

02:50 21 Q. And what you have just walked us through is  
02:50 22 effectively just a critique of Mr. Andrien's numbers,  
02:50 23 right?

02:50 24 A. I disagree.

02:50 25 Q. Well, you have not, for any number that we saw

02:50 1 on the screen, offered an affirmative opinion that you  
02:50 2 say, based on all of your analysis, this is the correct  
02:50 3 number that the jury should write down; isn't that  
02:50 4 fair?

02:50 5 A. I would say I have identified two numbers, a  
02:50 6 corrected Andrien number, as well as an alternative  
02:50 7 design calculation.

02:50 8 Q. You've identified numbers, right?

02:50 9 A. I've identified numbers, calculated and  
02:50 10 adjusted for corrections to Mr. Andrien's calculation.  
02:50 11 The jury can certainly look at that and the jury can  
02:50 12 either agree or disagree with it.

02:51 13 And then, secondarily, I've also identified  
02:51 14 the costs of alternative designs, which is an economic  
02:51 15 form of measuring the value of a patent. That would be  
02:51 16 another figure that the jury can look at and determine,  
02:51 17 just like they can look at and determine what  
02:51 18 Mr. Andrien has set forth.

02:51 19 Q. All right. We'll get back to that in just a  
02:51 20 second to see what it is you are saying is your opinion  
02:51 21 versus whether it's just a critique.

02:51 22 But before we do, I noted at the beginning you  
02:51 23 talked about reviewing Bell's 10-Ks and other  
02:51 24 documents.

02:51 25 Do you recall that?

02:51 1 A. Yes.

02:51 2 Q. And I think you said something along the lines  
02:51 3 of I did not see any references to drones as  
02:51 4 competition?

02:51 5 A. That's right.

02:51 6 Q. Did you just go into the 10-Ks and do a word  
02:51 7 search for "drones"?

02:51 8 A. No. I think it was a bit more thorough than  
02:51 9 that. I think I was looking at Textron's 10-K.

02:51 10 Q. Do you know what unmanned -- well, I guess  
02:52 11 we'll have to see what the word -- have you ever heard  
02:52 12 of unmanned aerial systems?

02:52 13 A. That's -- it's not a phrase that I've heard.  
02:52 14 I would say I've heard other phrases. I haven't heard  
02:52 15 that one.

02:52 16 Q. You've probably heard "unmanned aerial  
02:52 17 vehicles"?

02:52 18 A. That's correct, yes.

02:52 19 Q. And that's a drone?

02:52 20 A. Yes.

02:52 21 Q. Just by a different name?

02:52 22 A. I believe that's true in most senses.

02:52 23 Q. Okay. But you didn't see any reference when  
02:52 24 you looked at the 10-Ks to drones?

02:52 25 A. Not in Textron's 10-K.

02:52 1 MR. PANKRATZ: Can we bring up, please,  
02:52 2 Plaintiff's Exhibit 377, Mr. Patterson? And Page 4.  
02:52 3 And if you could zoom in on the bottom  
02:52 4 part of Page 4, the Textron's -- well, that's fine.  
02:52 5 This is under -- actually go back out for a second.  
02:52 6 We'll see this is under the Textron  
02:52 7 systems segment, and now we can blow up that paragraph.  
02:52 8 BY MR. PANKRATZ:

02:53 9 Q. And that second paragraph starts: Our  
02:53 10 unmanned systems product line includes unmanned  
02:53 11 aircraft systems, unmanned surface systems, and goes on  
02:53 12 to mention a couple others.

02:53 13 Next sentence: Unmanned aircraft systems  
02:53 14 include the Shadow, the U.S. Army's premier tactical  
02:53 15 unmanned aircraft system, which has surpassed 1 million  
02:53 16 flight hours since its introduction.

02:53 17 And then it goes on to mention another such as  
02:53 18 the Aerosonde small unmanned aircraft system.

02:53 19 Do you see that?

02:53 20 A. I see that. I guess I'm not quite following  
02:53 21 what you're -- what you're getting at.

02:53 22 Q. The 10-K's talking about drones, isn't it?

02:53 23 A. But that wasn't my testimony. My testimony  
02:53 24 was that I did not see any reference as it related to  
02:53 25 competition with commercial drones. And I did not see

02:53 1 that in terms of either naming a commercial drone  
02:54 2 company like DJI or Autel. And I also didn't see any  
02:54 3 naming of drones in terms of, again, commercial drones.

02:54 4 Q. Okay. So you didn't see the word "drones" and  
02:54 5 you didn't see the word "DJI" or "Autel," fair?

02:54 6 A. No. I think my testimony was I didn't see any  
02:54 7 name of any drone company in either their 10-K, which  
02:54 8 is their filing, or a Standard & Poor's filing that's  
02:54 9 available to everyone. Every financial person. It's  
02:54 10 available to you, all your colleagues. It's available  
02:54 11 to your expert.

02:54 12 And we look at those things on a normal course  
02:54 13 of business basis to understand who competes with who.  
02:54 14 And what I'm really trying to understand is when I do  
02:54 15 those analyses, especially with an SEC filing, is the  
02:54 16 SEC filings are done for one purpose. They're done to  
02:55 17 tell you -- they're done to tell you and anyone else  
02:55 18 who has an interest in the financial performance and  
02:55 19 the background of a company, what that company is  
02:55 20 doing. And leadership signs off on them to their  
02:55 21 accuracy.

02:55 22 And the point being, if we want to invest in  
02:55 23 Textron, we want to know who their competitors are. We  
02:55 24 want to know what their challenges are. And when they  
02:55 25 send that to the SEC, the Securities and Exchange

02:55 1 Commission, I was looking to see who they -- who  
02:55 2 Textron identified as their competitors.

02:55 3 So I beg your pardon. I see what you've  
02:55 4 showed me here, but this is inconsistent with what I  
02:55 5 testified to.

02:55 6 MR. PANKRATZ: Objection, nonresponsive.

02:55 7 THE COURT: Sustained.

02:55 8 BY MR. PANKRATZ:

02:55 9 Q. Sir, maybe you didn't hear my question. I  
02:55 10 wasn't asking about SEC documents beyond this or your  
02:55 11 analysis or a long description of that. I just wanted  
02:55 12 to know if you saw the words "DJI" or "Autel" or  
02:56 13 "drones" in any of Textron's 10-Ks?

02:56 14 A. Neither there nor in the other documents I  
02:56 15 looked at.

02:56 16 Q. Okay. But we do see that drones are discussed  
02:56 17 in Textron's 10-Ks, but not using the word "drone,"  
02:56 18 right?

02:56 19 A. I think that I see what's here and I'd be  
02:56 20 happy to elaborate. I can't really comment any further  
02:56 21 other than I disagree with what you're suggesting here  
02:56 22 about my analysis.

02:56 23 MR. PANKRATZ: You can take that down,  
02:56 24 Mr. Patterson.

02:56 25 BY MR. PANKRATZ:

02:56 1 Q. Now, you and Mr. Andrien also agree on at  
02:56 2 least one more thing, I think, which is there are three  
02:56 3 main approaches to calculating or determining the  
02:56 4 appropriate damages in a patent case, right?

02:56 5 A. I think that's reasonable, yes.

02:56 6 Q. And those are market, cost and income, right?

02:56 7 A. I believe that's correct, yes.

02:56 8 Q. All right. Mr. Andrien did not present a  
02:57 9 market approach damages number to the jury, fair?

02:57 10 A. That's correct.

02:57 11 Q. You also did not present a market approach  
02:57 12 damages number to the jury, correct?

02:57 13 A. That's correct.

02:57 14 Q. Mr. Andrien did not present a cost approach  
02:57 15 damages number to the jury, correct?

02:57 16 A. That's correct.

02:57 17 Q. You also did not present a cost approach  
02:57 18 damages number to the jury, right?

02:57 19 A. That's incorrect. I did.

02:57 20 Q. Well, let's dig into that just a little bit  
02:57 21 deeper. I know we'll go a lot deeper in noninfringing  
02:57 22 alternatives in a minute, but that's what you're  
02:57 23 talking about, noninfringing alternatives, right?

02:57 24 A. Yes. Noninfringing alternatives is identified  
02:57 25 as the cost approach. You're looking at what would the

02:57 1 cost be to design around a particular patent.

02:57 2 Q. Right. But you were clear to the jury that  
02:57 3 the noninfringing alternative costs you were looking  
02:57 4 at, those are not a limit, right?

02:57 5 A. They're not a limit. I understand that from a  
02:58 6 legal perspective, but I also understand that it is  
02:58 7 certainly a very significant data point that I  
02:58 8 understand that a jury can determine whether they  
02:58 9 believe that is the number in terms of damages that  
02:58 10 should be awarded. It doesn't suggest it can't be  
02:58 11 higher than that, but that's certainly a data point  
02:58 12 that the jury can consider.

02:58 13 Q. You did not tell the jury, unless I missed it,  
02:58 14 that you think the cost of noninfringing alternatives  
02:58 15 is the number they should write down on the verdict  
02:58 16 form, right?

02:58 17 A. I absolutely believe that's a number that is  
02:58 18 open to the jury to write down on a jury verdict form.  
02:58 19 It is the cost approach. I'm aware of it.

02:58 20 Mr. Andrien's aware of it, and Textron is aware of it.

02:58 21 It is certainly a number that they use. I  
02:58 22 understand that it is not a limiter on damages from a  
02:58 23 legal standpoint, but from an economic standpoint, as a  
02:58 24 valuator, I've used it. Mr. Andrien's used it, and  
02:58 25 Textron uses it over 60 times in its documents. So we

02:59 1 know it's prevalent. It's taught in all treatises in  
02:59 2 terms of accounting and finance. So it's absolutely  
02:59 3 very significant and certainly the jury can take that  
02:59 4 into account.

02:59 5 MR. PANKRATZ: Objection, nonresponsive.

02:59 6 THE COURT: Sustained.

02:59 7 BY MR. PANKRATZ:

02:59 8 Q. Sir, I'm going to ask it and I'll try and be  
02:59 9 careful in my wording.

02:59 10 Yes or no, did you present to the jury an  
02:59 11 opinion to tell them that when they fill in those  
02:59 12 blanks, the appropriate correct royalty number is the  
02:59 13 amount of the noninfringing alternatives?

02:59 14 A. Absolutely. It was the last slide that I  
02:59 15 showed. The jury can consider that number, and they  
02:59 16 can select that number. It's not a limiter. They can  
02:59 17 choose or select something higher --

02:59 18 THE COURT: Maybe you don't understand  
02:59 19 how this works, and I know you do because you've done  
02:59 20 this a lot. He's doing his best to ask you a direct  
02:59 21 question that gets a yes or no.

02:59 22 I let you go as long as you wanted when  
02:59 23 your witness (sic) was putting you on, but now this is  
03:00 24 cross, and you need to answer his question.

03:00 25 THE WITNESS: Yes, sir.

03:00 1 THE COURT: Thank you.

03:00 2 THE WITNESS: Thank you.

03:00 3 BY MR. PANKRATZ:

03:00 4 Q. Okay, sir. We'll circle back to noninfringing  
03:00 5 alternatives and that -- the cost approach a little  
03:00 6 bit, okay?

03:00 7 A. Yes.

03:00 8 Q. The third one -- the third approach that we  
03:00 9 talked about is an income approach, fair?

03:00 10 A. Yes.

03:00 11 Q. And you understand that Mr. Andrien did  
03:00 12 calculate damages in this case using that third  
03:00 13 approach, the income approach, right?

03:00 14 A. Yes.

03:00 15 Q. And the majority of your slides where we saw  
03:00 16 those numbers coming down, those were based on income  
03:00 17 approach, right?

03:00 18 A. Yes.

03:00 19 Q. Sir, you did not perform an income approach,  
03:00 20 did you?

03:00 21 A. No. I've corrected Mr. Andrien's.

03:00 22 Q. You do not believe that an income approach is  
03:00 23 an appropriate methodology to use based on the evidence  
03:01 24 in this case; isn't that fair?

03:01 25 A. That's correct.

03:01 1 Q. So it's fair to say that all of those income  
03:01 2 approach numbers that you put up, you don't think  
03:01 3 they're appropriate, right?

03:01 4 A. I think the numbers are appropriate. I don't  
03:01 5 think the income approach is appropriate. So, no, I  
03:01 6 don't agree with that.

03:01 7 Q. All of those numbers you were putting up are  
03:01 8 income-approach calculations, right?

03:01 9 A. Yes.

03:01 10 Q. And again, you do not believe that an income  
03:01 11 approach is appropriate to use in this case?

03:01 12 A. That's correct.

03:01 13 Q. Wouldn't you agree, sir, that what you've  
03:01 14 presented here is effectively just a critique of  
03:01 15 Mr. Andrien's income approach?

03:01 16 A. I think I would use the word "critique" or  
03:01 17 "correct." That's correct.

03:01 18 Q. So let's turn to that critique. You chopped  
03:01 19 it down several different ways, right?

03:01 20 A. Yes.

03:01 21 Q. Because you think his conclusions are  
03:02 22 unreasonable, right?

03:02 23 A. Yes. Among other things.

03:02 24 Q. But, again, you're not suggesting that your  
03:02 25 numbers are alternatives to Mr. Andrien's, are you?

03:02 1 A. No. They would certainly be alternatives  
03:02 2 because I have corrected them. I disagree.

03:02 3 Q. You're providing alternative calculations of a  
03:02 4 royalty using Mr. Andrien's methodology but with  
03:02 5 different assumptions?

03:02 6 A. I am -- I would say I disagree with that.

03:02 7 Q. Mr. -- you do recall you had your deposition  
03:02 8 taken in this case, right?

03:02 9 A. Yes.

03:02 10 Q. All right. And you were under oath?

03:02 11 A. Yes.

03:02 12 Q. You've been through how many depositions in  
03:02 13 your career?

03:02 14 A. Many.

03:02 15 Q. Okay. Dozens?

03:02 16 A. Yeah. Certainly.

03:02 17 Q. More than a hundred?

03:02 18 A. I would say it's somewhere around there.

03:02 19 Q. Okay. So you know how depositions work?

03:03 20 A. Yes. I do.

03:03 21 Q. And you're under oath and swear to tell the  
03:03 22 truth?

03:03 23 A. Yes.

03:03 24 Q. And you did, right?

03:03 25 A. Absolutely.

03:03 1 Q. Okay.

03:03 2 MR. PANKRATZ: Mr. Patterson, could we  
03:03 3 play the clip of Mr. Schoettelkotte's answer to this  
03:03 4 exact question?

03:03 5 It starts at Line 88 -- I'm sorry --

03:03 6 Page 88, Line 14, runs through Page 89, Line 3, about  
03:03 7 alternative calculations.

03:03 8 (Video played.)

03:03 9 Q. You provided alternative calculations of a  
03:03 10 royalty using Mr. Andrien's methodology but with  
03:03 11 different assumptions, right?

03:03 12 A. I wouldn't suggest that it's an alternative.  
03:03 13 I would suggest what I'm showing here is the nature of  
03:03 14 the unreasonable conclusions that Mr. Andrien has  
03:03 15 reached. And simply by adjusting certain inputs into  
03:03 16 Mr. Andrien's analysis, it vastly modifies  
03:03 17 Mr. Andrien's approach.

03:04 18 I certainly wouldn't set that forth as an  
03:04 19 opinion that I'm offering but much more part and parcel  
03:04 20 to my rebuttal of Mr. Andrien's approach to his  
03:04 21 analysis and the uses of data in -- based upon what  
03:04 22 I've seen and what I've reviewed in -- in ways that are  
03:04 23 inconsistent with the evidence in the case.

03:04 24 (End video.)

03:04 25 BY MR. PANKRATZ:

03:04 1 Q. That was your testimony, right, sir?

03:04 2 A. Yes.

03:04 3 Q. You certainly wouldn't set that forth as an

03:04 4 opinion that you're offering, right?

03:04 5 A. I heard that. Yes.

03:04 6 Q. One of the ways in this analysis where you

03:04 7 rebutted but were clear this is not your opinion you're

03:04 8 setting forth but you knocked down Andrien's number,

03:04 9 was with respect to costs, right?

03:04 10 A. Yes.

03:04 11 Q. You said you had to match revenue to costs?

03:04 12 A. Yes.

03:04 13 Q. And just as one example, and I think you

03:04 14 mentioned it was leadership or executive, something

03:05 15 along those lines?

03:05 16 A. Yes.

03:05 17 Q. So one of those costs that you think should be

03:05 18 off the table is bonuses to DJI's executives?

03:05 19 A. I'm not sure what you mean by "off the table."

03:05 20 Q. That means that it's money that DJI gets to

03:05 21 keep out from the split, right?

03:05 22 A. To the extent that there is salaries and

03:05 23 bonuses that are paid to management who is running the

03:05 24 company, certainly running the manufacturing of the

03:05 25 drones, I think that's a reasonable cost.

03:05 1 Q. Okay. So if Frank Wang gave himself a  
03:05 2 \$100 million bonus, that's off the table, right?

03:05 3 A. I'm not aware of that. That seems like a  
03:05 4 hypothetical. I don't know that there's accuracy to  
03:05 5 that.

03:05 6 Q. What, because you didn't look deep enough to  
03:05 7 know whether he did that?

03:05 8 A. No. I just haven't seen that in the financial  
03:05 9 records that I've identified.

03:05 10 Q. Okay. But if he had given himself a  
03:05 11 \$100 million bonus, according to you, he gets to keep  
03:06 12 that and doesn't have to split any of it with Bell,  
03:06 13 right?

03:06 14 A. To the extent that there were bonuses that  
03:06 15 were paid and they were included in the financial  
03:06 16 information, that would be part of their compensation,  
03:06 17 and it would be part of managing the company.

03:06 18 Q. Any arbitrary bonus he gives himself, that's  
03:06 19 off the table?

03:06 20 A. I would disagree.

03:06 21 Q. Okay. So, in fact, there is some level of  
03:06 22 unreasonableness on executive bonuses and other costs  
03:06 23 where you would say, hold on. Those do need to be put  
03:06 24 back in?

03:06 25 A. Again, I wouldn't agree with that either. I

03:06 1 would say that I'm not aware what you mean by  
03:06 2 "arbitrary bonus."

03:06 3 Q. Okay. But --

03:06 4 A. Most of -- I'm sorry. May I speak?

03:06 5 Q. I was about to ask a question.

03:06 6 A. Oh, beg your pardon. Go ahead, please.

03:06 7 Q. Just so the jury's clear, though, executive  
03:06 8 bonuses, those are off the table for the hypothetical  
03:06 9 negotiation to be shared between the parties, right?

03:06 10 A. I believe that bonuses that are based on  
03:07 11 performance would be incorporated into the analysis.

03:07 12 I'm not aware of arbitrary bonuses. I'm sorry.

03:07 13 Q. The second way you started to cut down or  
03:07 14 suggested that Mr. Andrien's numbers were unreasonable  
03:07 15 is based on the 25 percent baseline royalty rate that  
03:07 16 Bell Textron uses in some instances, right?

03:07 17 A. Yes.

03:07 18 Q. And you reran his numbers and dropped them  
03:07 19 down lower by using this different profit split?

03:07 20 A. Yes.

03:07 21 Q. And you call that Textron's baseline profit  
03:07 22 split rate, right?

03:07 23 A. Yes.

03:07 24 Q. Okay. Now, that 25 percent baseline number  
03:07 25 that you used, I think you said it's something Bell

03:07 1 uses in the standard normal course of business?

03:07 2 A. Yes. It was used in the standard normal  
03:08 3 course of business.

03:08 4 Q. But never for a patent license, right, sir?

03:08 5 A. I don't know that in particular.

03:08 6 Q. You don't?

03:08 7 A. No.

03:08 8 Q. Does it surprise you to learn here right now  
03:08 9 that Bell has never used the 25 percent baseline profit  
03:08 10 split for a patent license?

03:08 11 A. No.

03:08 12 Q. And, in fact, you're not aware of a single  
03:08 13 executed Bell Textron patent license that has had a  
03:08 14 25 percent value, right?

03:08 15 A. I'm not aware that I've seen that.

03:08 16 Q. You would also agree, sir, that you aren't  
03:08 17 using -- even setting aside that Bell doesn't use it  
03:08 18 for patents, the way you're using it here is not the  
03:08 19 way Bell even uses it for the other situations, right?

03:08 20 A. I'm not sure I understand the question.

03:08 21 Q. Well, you just applied it 25 percent, right?

03:08 22 A. I'm not sure I understand that question  
03:08 23 either. Can you tell me what you're asking me?

03:08 24 Q. Did you make any adjustments to that  
03:09 25 25 percent?

03:09 1 A. I looked at the Georgia-Pacific factors.

03:09 2 Q. Yes or no, sir?

03:09 3 A. The answer's no. I beg your pardon.

03:09 4 Q. You didn't adjust it up or down, right?

03:09 5 A. It wasn't necessary.

03:09 6 Q. Well, every time Bell uses it in all the  
03:09 7 documents you showed, they did a lot of analysis  
03:09 8 adjusting it up or down, right?

03:09 9 A. That's not correct.

03:09 10 Q. You showed the jury three different examples,  
03:09 11 maybe four, I can't remember. How many?

03:09 12 A. I showed them three, and I identified I  
03:09 13 reviewed 61.

03:09 14 Q. Okay. But the three that you showed to the  
03:09 15 jury, there were adjustments being made to that  
03:09 16 25 percent, right?

03:09 17 A. Yes. I'd be happy to explain, if you'd like.

03:09 18 Q. Well, let's look at one and we'll talk about  
03:09 19 it.

03:09 20 A. Sure.

03:09 21 Q. All right.

03:09 22 MR. PANKRATZ: Mr. Patterson, if you  
03:09 23 could bring up DTX-199, please.

03:09 24 And go to -- there we go. I think this  
03:10 25 is the right -- no. Maybe this is the right page here.

03:10 1 Baseline profit. There we go. That's --  
03:10 2 see. You read my mind. Thank you, sir.

03:10 3 BY MR. PANKRATZ:

03:10 4 Q. So we're looking at DTX-199. We've zoomed in  
03:10 5 on the analysis here where at the top there is a  
03:10 6 baseline profit split rate of 25 percent.

03:10 7 Do you see that, sir?

03:10 8 A. Yes.

03:10 9 Q. And then below it, in this Excel spreadsheet,  
03:10 10 there is a series of adjustment factors, right?

03:10 11 A. Yes.

03:10 12 Q. And after those five different adjustment  
03:10 13 factors are put in place, there is a risk-adjusted  
03:10 14 profit split rate of 45 percent.

03:10 15 Do you see that?

03:10 16 A. Yes.

03:10 17 Q. You did not analyze any adjustment factors for  
03:10 18 this particular analysis that you performed, right,  
03:11 19 sir?

03:11 20 A. That's incorrect.

03:11 21 Q. They weren't in your report.

03:11 22 A. I think that's incorrect.

03:11 23 Q. Okay. Well, I certainly didn't tell you --  
03:11 24 hear you tell the jury that they needed to adjust that  
03:11 25 25 percent, did you?

03:11 1 You didn't tell them that?

03:11 2 A. I believe that's also incorrect.

03:11 3 Q. One of the adjustment factors in Textron's own  
03:11 4 documents, again, this is not for patent licenses but  
03:11 5 for some licensing, one of the adjustment factors is  
03:11 6 political risks, right?

03:11 7 A. Yes.

03:11 8 Q. And down there it talks about: Political risk  
03:11 9 is risk of program modification, cancellation...

03:11 10 Do you see that?

03:11 11 A. Yes.

03:11 12 Q. You would agree that there are risks to Bell  
03:11 13 if it were to make a deal with DJI, right?

03:11 14 A. You'd have to be more explicit. I'm not sure  
03:11 15 what you're asking me.

03:11 16 Q. Bell's biggest customer is the United States  
03:12 17 government.

03:12 18 Did you hear that?

03:12 19 A. Yes. I did.

03:12 20 Q. And the U.S. government has identified DJI as  
03:12 21 a Chinese military company operating in the United  
03:12 22 States, correct?

03:12 23 A. I believe I've heard evidence of that. Yes.

03:12 24 Q. It would be risky for Bell to do a deal with a  
03:12 25 company that the U.S. government has specifically said

03:12 1 not to do business with, wouldn't it?

03:12 2 A. I can't tell you from a specific standpoint  
03:12 3 what that relationship is, but I -- I mean, it could.

03:12 4 Might not be. It could be.

03:12 5 But again, I think there's a lot of -- I mean,  
03:12 6 at the same time, DJI disputes it. So I'm trying to  
03:12 7 value the technology.

03:12 8 Q. Well, you're the one who suggested that we  
03:12 9 should look to this baseline profit split methodology,  
03:12 10 right?

03:12 11 A. Yes. Absolutely.

03:12 12 Q. Which is adjusted based on risk according to  
03:13 13 Bell's analysis, right?

03:13 14 A. Yes.

03:13 15 Q. And you did not -- well, let me back up and  
03:13 16 ask a different question.

03:13 17 You agree, sir, that the fact that it would be  
03:13 18 risky for Bell to do business with a company that its  
03:13 19 biggest customer has identified as a risk, that alone  
03:13 20 would be a reason for Bell to demand a higher royalty  
03:13 21 rate, wouldn't it?

03:13 22 A. It could. Again, it all depends on a lot of  
03:13 23 different factors. And I think it's unclear to me as  
03:13 24 to what actually would happen there.

03:13 25 Q. Okay. But you just used 25 percent, right?

03:13 1 The baseline?

03:13 2 A. That's incorrect.

03:13 3 Q. You're saying that your numbers were not  
03:13 4 calculated using the 25 percent number?

03:13 5 A. I used the 25 percent number, and then I  
03:13 6 looked at the Georgia-Pacific factors and I outlined  
03:13 7 those at the beginning of my presentation. And I said,  
03:13 8 collectively, they would have a downward impact.

03:13 9 And so I looked at those Georgia-Pacific  
03:14 10 factors and identified, based upon that 25 percent  
03:14 11 starting point, the Georgia-Pacific factors would have  
03:14 12 a downward impact.

03:14 13 Q. Okay. I'll try and ask it again.

03:14 14 You started at 25 percent, fair?

03:14 15 A. Yes.

03:14 16 Q. You ended at 25 percent, fair?

03:14 17 A. That is correct.

03:14 18 Q. The third way you suggested that Mr. Andrien's  
03:14 19 numbers get chopped down is based on the average sales  
03:14 20 price of drones, right?

03:14 21 A. Yes.

03:14 22 Q. And you said you intentionally looked for the  
03:14 23 cheapest drone you could find with the feature, right?

03:14 24 A. I looked for the lowest cost drone with the  
03:14 25 feature.

03:14 1 Q. Lowest cost is another way of saying the  
03:14 2 cheapest one?

03:14 3 A. You can call it whatever you like, sir.

03:14 4 Q. Would you agree that the lowest cost drone is  
03:14 5 the cheapest one?

03:14 6 A. I don't think any of them are cheap, and I  
03:14 7 think cheap has a different connotation. I beg your  
03:14 8 pardon.

03:14 9 Q. All right. Is a --

03:14 10 A. I think most people, when they buy these  
03:15 11 drones, they're spending quite a bit of money to have  
03:15 12 one. So I don't think any of them are cheap.

03:15 13 Q. Is \$86 a cheap drone, in your view?

03:15 14 A. I would say it's the lowest cost drone.

03:15 15 Q. Okay. That is the price of the drone that you  
03:15 16 picked as the one to use your -- do your calculations  
03:15 17 for the '752 patent though, right?

03:15 18 A. That is correct. That is -- that is correct.

03:15 19 MR. PANKRATZ: Mr. Patterson, could you  
03:15 20 bring up -- I believe it's Slide 50 from Mr. Andrien's  
03:15 21 slide deck. See if we get the right -- there. Thank  
03:15 22 you. Perfect.

23 BY MR. PANKRATZ:

03:15 24 Q. Now, you understand that Mr. Andrien looked at  
03:15 25 a set of drones based on surveys, right?

03:15 1 A. Yes.

03:15 2 Q. And this slide was where he was explaining to

03:15 3 the jury that these are the surveyed drones and their

03:16 4 costs, right?

03:16 5 A. Well, I would say it's a price.

03:16 6 Q. All right. We'll call it price.

03:16 7 A. Well, that would be accurate so let's do that.

03:16 8 Q. Okay. None of the drones that were surveyed

03:16 9 cost \$86, right?

03:16 10 A. Not on this page, no.

03:16 11 Q. So when Mr. Andrien was trying to figure out

03:16 12 the value based on surveys of features on drones, he

03:16 13 actually used the drones that were being surveyed,

03:16 14 right?

03:16 15 A. I believe those are the ones that he

03:16 16 handpicked.

03:16 17 Q. Well, you -- I didn't hear you say he

03:16 18 handpicked the wrong ones.

03:16 19 A. Those are the ones that he handpicked for his

03:16 20 analysis. I can't tell you they're the wrong ones.

03:16 21 Those are just the ones that he picked, but there could

03:16 22 have been others.

03:16 23 Q. Do you think maybe he picked those because

03:16 24 those are the drones that DJI picked to survey?

03:17 25 A. It's possible. You'd have to ask Mr. Andrien.

03:17 1 Q. Well, I think I recall him saying that that's  
03:17 2 why he chose those because DJI chose to survey them.

03:17 3 A. Okay.

03:17 4 Q. Wouldn't that be a fair reason to choose those  
03:17 5 drones to look at?

03:17 6 A. Not necessarily. Not in my opinion.

03:17 7 Q. And I said -- I heard you talking about how  
03:17 8 there were more features on higher-priced drones,  
03:17 9 right?

03:17 10 A. Yes.

03:17 11 Q. Is that an every time, all the time, there's  
03:17 12 always more features if you pay more money?

03:17 13 A. It depends. I would say if you're paying more  
03:17 14 money, you might get a larger drone. There could be  
03:17 15 more material that's involved. So it doesn't have to  
03:17 16 hold every time. But in general, if you buy a  
03:17 17 higher-priced drone, it's got more quality to it, I  
03:17 18 would think. It's got more features. It's got more  
03:17 19 size.

03:17 20 Q. Okay.

03:17 21 MR. PANKRATZ: You can take that one  
03:17 22 down.

03:17 23 BY MR. PANKRATZ:

03:18 24 Q. You do agree, though, sir, that the surveys  
03:18 25 Mr. Andrien used were for specific drones with a

03:18 1 specific set of features, right?

03:18 2 A. That's what he said.

03:18 3 Q. Did you look at those surveys?

03:18 4 A. Yes.

03:18 5 Q. You would agree that those surveys were for  
03:18 6 specific drones and the features on those drones,  
03:18 7 right?

03:18 8 A. Yes.

03:18 9 Q. But you would not agree -- let me rephrase it.

03:18 10 You think it's wrong to look at the price of  
03:18 11 the drones that were actually surveyed, right?

03:18 12 A. No. I think that -- well, I disagree with  
03:18 13 you. I want to make sure that I stick to the Q&A that  
03:18 14 you have.

03:18 15 Q. Thanks.

03:18 16 You think that a better data point is to look  
03:18 17 at a drone that wasn't surveyed, right?

03:18 18 A. Well, that wasn't my rationale for selecting  
03:19 19 that. So I would disagree with that.

03:19 20 Q. Okay. But you did select a drone that wasn't  
03:19 21 surveyed, right?

03:19 22 A. But not for that purpose. But yes.

03:19 23 Q. Well, you chose it because it got a real low  
03:19 24 number. Isn't that why you chose it?

03:19 25 A. No.

03:19 1 Q. You would agree, though, sir, if you had  
03:19 2 calculated a rate using the surveyed drones, you would  
03:19 3 have gotten a higher number?

03:19 4 A. I think the answer is yes. And I'd be happy  
03:19 5 to explain why.

03:19 6 Q. Well, I think we know why. They're more  
03:19 7 expensive, right?

03:19 8 A. If you'd allow me to elaborate, I'd be happy  
03:19 9 to explain why.

03:19 10 Q. Well, I may ask you some more questions about  
03:19 11 that, but before I do, I'd like to talk to you about  
03:19 12 insurance.

03:19 13 We all know what insurance is, right?

03:19 14 A. Yes.

03:19 15 Q. And it's an important thing. It's kind of a  
03:19 16 safety net for us, right?

03:20 17 A. It's good to have insurance when you need  
03:20 18 insurance.

03:20 19 Q. Yeah. If you wreck your car, you better have  
03:20 20 insurance because it's -- the law says so, right?

03:20 21 A. That's one reason, yes.

03:20 22 Q. You would agree that hover hold is a safety  
03:20 23 feature, right?

03:20 24 A. Could be.

03:20 25 Q. In fact, multiple folks have sat in that chair

03:20 1 and said exactly that, right?

03:20 2 A. Could be. Yes. I'm not a drone expert, but  
03:20 3 yes, it could be.

03:20 4 Q. Helps protect against crashing your drone?

03:20 5 A. I believe I've heard testimony one way or the  
03:20 6 other on that. I don't recall specifically.

03:20 7 Q. You would agree, sir, that customers would be  
03:20 8 willing to pay more to protect a \$12,000 drone compared  
03:20 9 to an \$86 one, right?

03:20 10 A. In general, I would say that's accurate.

03:20 11 Q. Let's talk about those noninfringing  
03:20 12 alternatives again.

03:20 13 A. Okay.

03:20 14 Q. All right. We're done with the income  
03:21 15 approach and now we're to what you call the cost  
03:21 16 approach, right?

03:21 17 A. I think that's correct.

03:21 18 Q. And you testified about what you say it would  
03:21 19 have cost for DJI to implement noninfringing  
03:21 20 alternatives, right?

03:21 21 A. I've -- well, I would disagree with that.

03:21 22 Q. Okay.

03:21 23 A. And I'd be happy to explain why.

03:21 24 Q. Well, let's see if we can get there. I think  
03:21 25 you explained that a noninfringing alternative is

03:21 1 effectively just an alternative that DJI could switch  
03:21 2 to or design into that would avoid infringing the  
03:21 3 patent; is that fair?

03:21 4 A. No. I believe that's unfair.

03:21 5 Q. That's unfair? Okay. It's not just -- a  
03:21 6 noninfringing alternative is not just a design-around?

03:21 7 A. I would disagree with that.

03:21 8 Q. It's something that has to be available and  
03:21 9 acceptable to the customers, right?

03:21 10 A. Available and acceptable to customers, which  
03:21 11 is something I evaluated.

03:21 12 Q. But you don't know whether it would be  
03:22 13 available and acceptable, any of these noninfringing  
03:22 14 alternatives, do you?

03:22 15 A. I disagree with that. I'd be happy to  
03:22 16 explain.

03:22 17 Q. Well, you relied on DJI to tell you that,  
03:22 18 right?

03:22 19 A. I would disagree with that. I'd be happy to  
03:22 20 explain.

03:22 21 THE COURT: You don't need to keep saying  
03:22 22 you'd be happy to explain. Just answer his questions,  
03:22 23 okay?

03:22 24 THE WITNESS: Okay. Certainly.

03:22 25 BY MR. PANKRATZ:

03:22 1 Q. Well, you would agree with me that DJI claims  
03:22 2 it had available noninfringing alternatives, right?

03:22 3 A. Yes.

03:22 4 Q. DJI is claiming it could avoid infringement by  
03:22 5 switching out the infringing features, right?

03:22 6 A. Well, I guess that's not my -- that's not my  
03:22 7 understanding of what they're saying.

03:22 8 Q. Were you here for Dr. Nourbakhsh's testimony?

03:22 9 A. I was, yes.

03:22 10 Q. Where he said that DJI could have just avoided  
03:23 11 this whole mess by switching to one of those  
03:23 12 alternatives?

03:23 13 A. Yes.

03:23 14 MR. PANKRATZ: For the '909 patent, if we  
03:23 15 could bring up -- let's look at this. If we could  
03:23 16 bring up DDX -- this is Mr. Schoettelkotte's slides at  
03:23 17 Slide 33. You can see it in black and white.

18 BY MR. PANKRATZ:

03:23 19 Q. All right. This is your Slide 33, correct,  
03:23 20 sir?

03:23 21 A. Yes.

03:23 22 Q. You said, if we look at that top row, that the  
03:23 23 cost for a noninfringing alternative for the '909  
03:23 24 patent would have been \$9,297, right?

03:23 25 A. Yes.

03:23 1 Q. Less -- just a little bit shy of 10,000?

03:23 2 A. Yes.

03:23 3 Q. So for just a little bit less than \$10,000, as  
03:24 4 Dr. Nourbakhsh said, DJI could have avoided this whole  
03:24 5 mess, right?

03:24 6 A. I don't recall what he specifically said, but  
03:24 7 I understand that for that number, 9,297, that would  
03:24 8 have provided them with a design-around.

03:24 9 Q. And for the '752 patent, because there's three  
03:24 10 UAV series, it's three times 9,000-ish, which comes in  
03:24 11 at just shy of \$30,000, right?

03:24 12 A. Yes.

03:24 13 Q. And, again, DJI could have avoided the whole  
03:24 14 mess on the '752 by just spending \$30,000 to put in  
03:24 15 these supposed alternatives, right?

03:24 16 A. It's my under -- well, I don't know if I would  
03:24 17 agree with that based on the way you phrased it.

03:24 18 Q. Well, for a total of less than \$40,000,  
03:24 19 according to your and Dr. Nourbakhsh's logic, DJI could  
03:24 20 have avoided this whole trial, right?

03:24 21 A. I think that they could have designed around,  
03:25 22 as we talked about. I haven't really thought about the  
03:25 23 trial, but if you're throwing that in, I would say,  
03:25 24 yeah. If there was no infringement and there was no  
03:25 25 accusation of that, there wouldn't be a trial.

03:25 1 Q. And I think that's probably "the whole mess"  
03:25 2 that Dr. Nourbakhsh was referring to?

03:25 3 A. I don't know.

03:25 4 Q. By avoiding this trial, DJI could have avoided  
03:25 5 the risk of having to pay \$367 million in damages,  
03:25 6 right?

03:25 7 A. I would say if you're -- if you're referring  
03:25 8 to the damages position of Mr. Andrien?

03:25 9 Q. Yes.

03:25 10 A. I would say that that's one thing one would  
03:25 11 consider if you had -- if you believe that to be an  
03:25 12 accurate presentation.

03:25 13 Q. Okay. DJI did not implement any of the  
03:26 14 noninfringing alternatives that Dr. Nourbakhsh  
03:26 15 discussed into any of these accused products, right?

03:26 16 A. I'm not aware they did.

03:26 17 Q. DJI chose not to do that, right?

03:26 18 A. I can't speak on what they chose to do.

03:26 19 Q. Well, they chose to keep using the accused  
03:26 20 technology, right?

03:26 21 A. I can't speak to that.

03:26 22 Q. Isn't that why we're here?

03:26 23 A. Like I said, I can't speak to what they chose  
03:26 24 to do.

03:26 25 Q. Sir, your billing rate is -- that your company

03:26 1 bills you out at is \$650 per hour, right?

03:26 2 A. That's correct.

03:26 3 Q. And how many folks have you had helping you on  
03:26 4 this case?

03:26 5 A. Two.

03:26 6 Q. Two?

03:26 7 Collectively, over the past few weeks,  
03:26 8 roughly, how much is your invoice going to look like?

03:26 9 A. I'm not sure I could tell you. I've worked  
03:26 10 quite a bit on this case over the last few weeks, but I  
03:26 11 don't have a sense of that.

03:26 12 Q. Probably more than \$40,000, right?

03:26 13 A. I would say it's probably more than that.

03:26 14 Again, I don't know the sense of it.

03:26 15 Q. And over the course of this entire case, do  
03:27 16 you have a rough estimate of what the total invoices  
03:27 17 from your company that are going to be paid by DJI look  
03:27 18 like?

03:27 19 A. I don't. I don't. We've worked very hard on  
03:27 20 the project, but I don't have a sense of that.

03:27 21 Q. You heard Dr. Nourbakhsh alone has been paid  
03:27 22 somewhere around half a million dollars just for this  
03:27 23 case, right?

03:27 24 A. I think I heard something along those lines.  
03:27 25 Yes.

03:27 1 Q. At the high end, it was more; maybe it was a  
03:27 2 little less?

03:27 3 A. Again, I heard some numbers thrown around. I  
03:27 4 don't recall what they were specifically.

03:27 5 Q. Do you think DJI has paid your company more or  
03:27 6 less than half a million dollars for all the time y'all  
03:27 7 have spent on this?

03:27 8 A. I think it would be less.

03:27 9 Q. It would be less?

03:27 10 So somewhere shy of a million dollars just to  
03:27 11 the experts is what DJI has already paid in this case?

03:27 12 A. I don't know what the numbers would be. I  
03:27 13 would say that my firm bills for my time. I can't tell  
03:27 14 you what it is. It's not something that I track.

03:27 15 Q. And the million dollars in experts doesn't  
03:28 16 count how much DJI has paid the lawyers, right?

03:28 17 A. Yeah. I wouldn't have any way of knowing  
03:28 18 that. I'm not billed with the lawyers.

03:28 19 Q. All right. Or the risks of a potential  
03:28 20 damages verdict, right? That -- if you add that in,  
03:28 21 there's even more potential money at stake, right?

03:28 22 A. Well, I think there's risks on both sides  
03:28 23 because there's accusations on both sides. And I don't  
03:28 24 know what the lawyers think when they evaluate those  
03:28 25 things.

03:28 1 Q. But rather than just spending \$40,000 to avoid  
03:28 2 this whole mess, DJI decided to spend all that money  
03:28 3 instead, right?

03:28 4 A. Well, I would disagree with what I think  
03:28 5 you're suggesting.

03:28 6 MR. PANKRATZ: I pass the witness.

03:28 7 MS. KESTLE: No further questions,  
03:28 8 Your Honor.

03:28 9 THE COURT: Very good. You may step  
03:28 10 down.

03:28 11 THE WITNESS: Thank you, sir.

03:28 12 THE COURT: And if I could have one  
03:29 13 counsel up here from each side, please.

03:29 14 (Bench conference.)

03:29 15 THE COURT: About how long is your --

03:29 16 MR. PANKRATZ: I'm going to make you a  
03:29 17 happy man and tell you that, based on the state of the  
03:29 18 evidence and the record, we don't need a rebuttal case.

03:29 19 THE COURT: Oh, okay. Then we'll take  
03:29 20 our afternoon break. We'll take up willfulness. I'll  
03:29 21 decide that.

03:29 22 When we finish and decide that, we may or  
03:29 23 may not need to fix the charge. Either way, I'm going  
03:29 24 to get that resolved. I'll bring them in, I'll charge  
03:29 25 them, and we'll be done for the afternoon.

03:29 1 MR. SCHROEDER: Two questions. We can do  
03:29 2 the whole 50(a) at that time --

03:29 3 THE COURT: Yes. I'm sorry. I meant to  
03:29 4 complete that too.

03:29 5 MR. SCHROEDER: The second issue,  
03:29 6 Your Honor, is we had some exhibits that were admitted  
03:29 7 during, I think, the public record, and we wanted to  
03:29 8 move them onto the sealed record.

03:29 9 Do we do that in front of the presence of  
03:30 10 the jury or can --

03:30 11 THE COURT: No. I don't think you  
03:30 12 need -- I don't think you need to do that in front of  
03:30 13 the jury.

03:30 14 MR. SCHROEDER: Okay. So we can just  
03:30 15 sort that out.

03:30 16 THE COURT: Yeah. Just sort that out.

03:30 17 MR. SCHROEDER: Okay. All right.

03:30 18 THE COURT: Anything else?

03:30 19 MR. PANKRATZ: No.

03:30 20 THE COURT: Can I tell them that both  
03:30 21 sides have rested?

03:30 22 MR. SCHROEDER: Yes.

23 MR. PANKRATZ: Yes.

03:30 24 THE COURT: Okay. Thank you.

03:30 25 (Bench conference concludes.)

03:30 1                   THE COURT: Ladies and gentlemen of the  
03:30 2 jury, I know you are anxious to take a break, but I'm  
03:30 3 going to hold you one second longer to give you the  
03:30 4 good news that we're done with the trial, and so both  
03:30 5 sides have rested.

03:30 6                   In a few minutes I'm going to have to do  
03:30 7 the thing I hate the most, which is read to you for  
03:30 8 about an hour the jury charge, and we have a -- we're  
03:30 9 going to need just a few minutes to make sure we've got  
03:30 10 it right.

03:30 11                  You all take your break. As soon as --  
03:30 12 it won't take that long, but as soon as we're done with  
03:30 13 that, we'll come back in. I will read this to you. It  
03:30 14 takes about an hour. When we finish, you'll be going  
03:31 15 home. Tomorrow morning at 9:00, you'll come back, the  
03:31 16 lawyers will do their closing arguments, and you'll  
03:31 17 begin your deliberations. And you'll do those as long  
03:31 18 as you need.

03:31 19                  So that's the plan for the rest of the  
03:31 20 afternoon.

03:31 21                  THE BAILIFF: All rise.

03:31 22                  (Jury exited the courtroom.)

03:31 23                  THE COURT: You may be seated.

03:31 24                  Why don't we split up -- why don't we go  
03:31 25 first with the plaintiff and any motions you want to

03:31 1 make. And then when I get to defendant, I'd like to  
03:31 2 split up all the motions -- the motions you want to  
03:31 3 make with everything, other than with respect to  
03:31 4 willfulness, and then I'll take up willfulness  
03:31 5 separately.

03:31 6 And also, if -- setting aside for a  
03:32 7 second the willfulness issue, which is a substantive  
03:32 8 issue, does the plaintiff have any objections they'd  
03:32 9 like to put on the record with respect to the charge?

03:32 10 MR. HAWES: No, Your Honor. The  
03:32 11 plaintiff does not.

03:32 12 THE COURT: And does the defendant have  
03:32 13 any objections they'd like to make, setting aside  
03:32 14 anything that deals with willfulness?

03:32 15 MR. PALMER: One minute, Your Honor.

03:32 16 THE COURT: Of course.

03:32 17 While y'all are searching, why doesn't  
03:32 18 the plaintiff make their motions for directed verdict?

03:32 19 MR. HAWES: Yes, Your Honor. This is  
03:32 20 Michael Hawes.

03:32 21 So, Your Honor, we're going to be making  
03:32 22 motions with regard to validity and infringement. I'd  
03:32 23 like to start with the '752 obviousness case that you  
03:32 24 heard this morning.

03:32 25 As we heard the expert admit, this was

03:32 1 not an anticipation argument. The only argument for  
03:33 2 invalidity of the '752 asserted claim is under  
03:33 3 obviousness.

03:33 4 And with regard to the automatic  
03:33 5 engagement requirement, we have no testimony going to  
03:33 6 any analysis or evidentiary support for modifying the  
03:33 7 reference, the Gold reference, to have that requirement  
03:33 8 or testimony and evidence as required to have that  
03:33 9 requirement and to analyze whether that had a  
03:33 10 reasonable expectation of success at the time.

03:33 11 Once you move from anticipation to  
03:33 12 obviousness, those are blackletter law requirements for  
03:33 13 an obviousness case, and we just -- we just didn't hear  
03:33 14 them this morning.

03:33 15 And so, you know, plaintiff requests that  
03:33 16 the Court enter judgment that there's no invalidity  
03:33 17 with regard to the '752 patent, Claim 13.

03:33 18 And that's our first one. You want me to  
03:33 19 just keep going?

03:33 20 All right.

03:33 21 With regard to invalidity under the '909,  
03:34 22 we believe that the -- we should also have a judgment  
03:34 23 as a matter of law under Rule 50(a), specifically a  
03:34 24 reasonable jury could not adopt DJI's sole invalidity  
03:34 25 argument under Frink, which is the only reference that

03:34 1 we had, because the calculating a calculated velocity  
03:34 2 requirement was not adequately identified with respect  
03:34 3 to a person of ordinary skill in the art, clear and  
03:34 4 convincing evidence that a person of ordinary skill in  
03:34 5 the art would have understood that requirement was  
03:34 6 disclosed in Frink or that Frink could be modified to  
03:34 7 include that requirement.

03:34 8 And because of that, we believe judgment  
03:34 9 as a matter of law should be granted.

03:34 10 Moving to infringement.

03:34 11 With regard to the '909 patent, the  
03:34 12 testimony of the defendants' expert was based on  
03:34 13 language that's not in the asserted claims.

03:34 14 So, for example, the expert continued to  
03:34 15 refer to how movement data was missing. Movement data  
03:35 16 is not found -- it's not a term in the actual asserted  
03:35 17 claims. And the law is clear that testimony based on  
03:35 18 language missing from the claims is not substantial  
03:35 19 evidence.

03:35 20 He also relied on additional features in  
03:35 21 the sense of saying that because the accused products  
03:35 22 controlled position, that that negated infringement.  
03:35 23 But that's contrary to the law that having an  
03:35 24 additional feature does not negate infringement.

03:35 25 You -- that doesn't establish an absence.

03:35 1 You could have both controlling the position as well as  
03:35 2 the claimed velocity requirements.

03:35 3 And to the extent that the expert merely  
03:35 4 crossed out portions of the claim language with regard  
03:35 5 to that testimony, that's merely conclusory, which the  
03:35 6 Court has found is not substantial evidence.

03:35 7 Finally, Your Honor, on the '752 patent,  
03:35 8 Dr. Nourbakhsh first argued that Claim 13's preamble  
03:36 9 requires controllers that must be on board; however,  
03:36 10 the claim language does not say whether the aircraft  
03:36 11 has remote controllers or onboard controllers.

03:36 12 The infringement allegation here is one  
03:36 13 of sale. There is no evidence that those controllers  
03:36 14 are not provided as part of the sale. And the claim  
03:36 15 itself does not require them to be on board or remote.  
03:36 16 It allows any controller. And so because on board is  
03:36 17 not a term of the claim, that is not substantial  
03:36 18 evidence.

03:36 19 Again, Dr. Nourbakhsh showed an  
03:36 20 additional feature, that if you push the -- in the  
03:36 21 courtroom he had it come up. And if you push away the  
03:36 22 drone, he said, well, in that situation, you know, the  
03:36 23 drone's trying to come back.

03:36 24 And, you know, the law is clear that, you  
03:36 25 know, one method of operation, especially an operation

03:36 1 in a limited scenario that's contrary to the user  
03:36 2 instructions, is not substantial evidence of  
03:36 3 noninfringement because the fact that the drone might  
03:37 4 sometimes operate in a different matter, doesn't show  
03:37 5 noninfringement with regard to the common operation.

03:37 6 That's indicated in their documents and  
03:37 7 was indicated in the testimony of plaintiff's expert.

03:37 8 So to the extent the, you know, their  
03:37 9 expert crossed out -- again, just crossed out language  
03:37 10 on the slide, that's conclusory without actual evidence  
03:37 11 to back it up.

03:37 12 So for all those reasons, DJI moves for  
03:37 13 judgment of infringement with regard to the asserted  
03:37 14 claims of the '909 patent and the '752 patent.

03:37 15 THE COURT: Thank you. Those are  
03:37 16 overruled.

03:37 17 Now, back to defendant. Are there any  
03:37 18 objections you want to make to the jury charge?

03:37 19 MR. SCHROEDER: Yes, Your Honor.

03:37 20 With respect to jury instruction in B.22  
03:37 21 regarding the missing source code, the defendants  
03:37 22 object to the inclusion of this instruction in its  
03:37 23 entirety. The Chinese government precluded defendants  
03:37 24 from exporting certain source code, and the entry of  
03:37 25 such an instruction is a harsh penalty for defendants

03:37 1 being so precluded.

03:37 2 More importantly, however, as the  
03:38 3 evidence adduced at trial illustrates, this source code  
03:38 4 was not necessary for either party to offer their  
03:38 5 opinions regarding infringement, and the entry of such  
03:38 6 an instruction is unfairly prejudicial.

03:38 7 With respect to the instruction in B.37,  
03:38 8 doubts resolved against the infringer, defendants  
03:38 9 object to the inclusion of this instruction in its  
03:38 10 entirety.

03:38 11 Textron contends that this instruction is  
03:38 12 warranted because defendants failed to produce sales  
03:38 13 information on an entity-by-entity or sales channel  
03:38 14 basis. Textron never sought this information on an  
03:38 15 entity-by-entity or sales channel basis during  
03:38 16 discovery. And any theories for which any such  
03:38 17 financial information may have been relevant were not  
03:38 18 introduced by Textron until its opposition to  
03:38 19 defendants' motion for partial summary judgment.

03:38 20 Defendants have not failed to produce  
03:38 21 necessary financial information to justify the  
03:38 22 inclusion of such an instruction.

03:38 23 And as to the verdict form, defendants  
03:38 24 object to Question No. 1. Magistrate Judge Gilliland  
03:39 25 rejected Textron's attempts to introduce a

03:39 1 piercing-the-corporate-veil theory and treat defendants  
03:39 2 as a single entity, yet that is precisely what  
03:39 3 Question 1 of the verdict form does.

03:39 4 Textron presented different theories for  
03:39 5 direct infringement based on the DJI entity. Question  
03:39 6 No. 1 fails to give the jury the opportunity to  
03:39 7 appropriately address each of those distinct theories.

03:39 8 Question No. 1 should ask instead whether  
03:39 9 the jury believes Textron has proven, one, that DJI  
03:39 10 Europe BV directly infringes; two, that the other named  
03:39 11 DJI entities directly infringe or, three, that other  
03:39 12 unnamed DJI entities directly infringe.

03:39 13 I believe that's it as to the jury charge  
03:39 14 and the verdict form.

03:39 15 THE COURT: Okay.

03:39 16 Now, if you would like to make your  
03:39 17 objections to the non-willfulness issues in the case.

03:39 18 Yes, sir.

03:39 19 MR. JAKES: Good afternoon, Your Honor.  
03:40 20 Mike Jakes for the defendants.

03:40 21 We move for a judgment under Rule 50(a)  
03:40 22 on direct infringement, induced infringement,  
03:40 23 invalidity and damages, and I will say willfulness. We  
03:40 24 are planning to file a Rule 50(a) motion before the  
03:40 25 case is submitted to the jury tomorrow.

03:40 1 Starting with infringement, the Court  
03:40 2 should enter judgment that DJI's drones with the  
03:40 3 Follow Me or ActiveTrack do not infringe Claims 1, 7,  
03:40 4 10 and 11 of the '909 patent either literally or under  
03:40 5 the doctrine of equivalents.

03:40 6 A reasonable jury would not have a  
03:40 7 legally sufficient basis to find that DJI's drones  
03:40 8 receive transmitted reference data communicating a  
03:40 9 position and movement of a reference vehicle, either  
03:40 10 literally or by equivalency. In the Follow Me mode,  
03:40 11 DJI's drones only receive position data, not velocity  
03:40 12 data. And in ActiveTrack, the drones do not receive  
03:41 13 either position or movement data.

03:41 14 Second, a reasonable jury would not have  
03:41 15 a legally sufficient basis to find that DJI's drones  
03:41 16 have a selected velocity relative to the reference  
03:41 17 vehicle, either literally or by equivalency. DJI's  
03:41 18 drones with the Follow Me mode or ActiveTrack do not  
03:41 19 allow for selection of any relative velocity, either  
03:41 20 literally or equivalently. DJI's drones with Follow Me  
03:41 21 mode or ActiveTrack follow an object at a fixed  
03:41 22 distance to the object.

03:41 23 In addition, a reasonable jury would not  
03:41 24 have a legally sufficient basis to find that DJI's  
03:41 25 drones have a control system that calculates relative

03:41 1 velocity. They also do not control the aircraft such  
03:41 2 that it attains and maintains the selected relative  
03:41 3 velocity. DJI's drones also do not have a selected  
03:41 4 relative position or selected relative velocity which  
03:41 5 is selected and input prior to flight.

03:42 6 And a reasonable jury would not have a  
03:42 7 legally sufficient basis to find that DJI's drones have  
03:42 8 a selected relative velocity preprogrammed into the  
03:42 9 control system prior to flight.

03:42 10 So for these reasons, the Court should  
03:42 11 enter a judgment that DJI's drones do not infringe the  
03:42 12 '909 patent, either literally or under the doctrine of  
03:42 13 equivalents.

03:42 14 On the '752 patent, the Court should  
03:42 15 enter judgment that DJI's drones do not infringe  
03:42 16 Claim 13 of this patent, either literally or under the  
03:42 17 doctrine of equivalents.

03:42 18 A reasonable jury would not have a  
03:42 19 legally sufficient basis to find that DJI's drones have  
03:42 20 the claimed longitudinal, lateral, directional and  
03:42 21 vertical controllers, either literally or under the  
03:42 22 doctrine of equivalents. Under the plain meaning of  
03:42 23 the claim, the aircraft does not have the claim  
03:42 24 controllers. To the extent they are found anywhere,  
03:42 25 they're on the remote.

03:42 1 A reasonable jury would not have a  
03:42 2 legally sufficient basis to find that DJI's drones have  
03:42 3 the forward speed hold loop or lateral speed hold loop,  
03:43 4 either literally or under the doctrine of equivalents.

03:43 5 No reasonable jury could find that  
03:43 6 holding a position is the same as holding speed, which  
03:43 7 is what is required by the claims.

03:43 8 Also DJI's drones do not automatically  
03:43 9 engage either a forward speed hold loop or a lateral  
03:43 10 speed hold loop when the corresponding controller is  
03:43 11 returned to detent positions and the aircraft  
03:43 12 groundspeed is outside a first groundspeed threshold.

03:43 13 In addition, any forward or lateral speed  
03:43 14 hold loop does not automatically engage when the  
03:43 15 respective controller is released.

03:43 16 A reasonable jury would not have a  
03:43 17 legally sufficient basis to find that DJI's drones have  
03:43 18 the claimed longitudinal maneuverability or lateral  
03:43 19 maneuverability, either literally or under the doctrine  
03:43 20 of equivalents. DJI's drones behave the same way for  
03:43 21 longitudinal and lateral flight. So no reasonable jury  
03:43 22 could find that longitudinal and lateral  
03:43 23 maneuverability are controlled by different loops.

03:44 24 So for those reasons, the Court should  
03:44 25 enter judgment that DJI's drones don't infringe

03:44 1 Claim 13 of the '752 patent.

03:44 2 On direct infringement, aside from sales  
03:44 3 in the U.S. made by DJI Europe, a reasonable jury would  
03:44 4 not have a legally sufficient basis to find that the  
03:44 5 other DJI defendants, that's iFlight, Baiwang and SZ  
03:44 6 DJI, have committed an act of direct infringement in  
03:44 7 the U.S. These three DJI defendants do not make, use,  
03:44 8 sell or offer to sell drones in the U.S.

03:44 9 Sales in the U.S. are made through other  
03:44 10 DJI entities that are not parties to this suit. That's  
03:44 11 DJI Service, DJI Industrial and Saikoron, which are  
03:44 12 U.S. entities that Textron did not name in this  
03:44 13 lawsuit.

03:44 14 The only evidence shows that defendant,  
03:44 15 iFlight, sells the drones to the U.S. entities in  
03:44 16 China, not in the U.S.

03:44 17 To the extent that Textron contends that  
03:44 18 SZ DJI or the other defendants offer to sell drones in  
03:45 19 the U.S. through the dji.com website, a reasonable jury  
03:45 20 would not have a legally sufficient basis to find that  
03:45 21 any of these entities actually made sales in the U.S.  
03:45 22 for the purpose of calculating and awarding damages.

03:45 23 On invalidity, the Court should grant  
03:45 24 judgment of invalidity that Claims 1, 7, 10 and 11 of  
03:45 25 the '909 patent would have been anticipated or rendered

03:45 1 obvious by Frink.

03:45 2 A reasonable jury would not have a  
03:45 3 legally sufficient basis to find that the claims were  
03:45 4 not anticipated or obvious over the Frink reference.  
03:45 5 There's no dispute that Frink is prior art to the '909  
03:45 6 patent and there was clear and convincing evidence that  
03:45 7 was unrebutted that Frink discloses each of the  
03:45 8 limitations of the claims and that the claims would  
03:45 9 have been obvious.

03:45 10 The Court should also grant judgment of  
03:45 11 invalidity of the Claim 13 of the '752 patent would  
03:45 12 have been obvious over Gold.

03:45 13 A reasonable jury would not have a  
03:45 14 legally sufficient basis to find that the claims were  
03:46 15 not obvious over the Gold reference. There's no  
03:46 16 dispute that Gold is prior art, and there's clear and  
03:46 17 convincing evidence that Claim 13 would have been  
03:46 18 obvious from the Gold reference.

03:46 19 And finally, DJI moves for judgment as a  
03:46 20 matter of law that Textron is not entitled to any  
03:46 21 damages because the patents are not infringed or  
03:46 22 invalid.

03:46 23 A reasonable jury would not have a  
03:46 24 legally sufficient basis to award a lump sum more than  
03:46 25 \$3.6 million. That's 1.5 million for the '909 patent

03:46 1 and 2.1 million for the '752 patent, considering the  
03:46 2 cost of the design-arounds and the available  
03:46 3 alternatives.

03:46 4 Textron's damages theories are based on  
03:46 5 an improper use of the Book of Wisdom and labeling DJI  
03:46 6 as a Chinese military company, which was also improper.

03:46 7 In addition, as I mentioned before in  
03:46 8 connection with direct infringement, to the extent  
03:46 9 Textron contends that SZ DJI or the other defendants  
03:47 10 directly infringe by offering to sell drones in the  
03:47 11 U.S. through the dji.com website, Textron has not shown  
03:47 12 any actual sales by those entities for computing  
03:47 13 damages or the amount of those allegedly infringing  
03:47 14 sales.

03:47 15 Your Honor, that leaves willfulness and  
03:47 16 indirect infringement, which is -- raises a similar  
03:47 17 issue, and I'm happy to address willful infringement.

03:47 18 THE COURT: I'm going to ask the  
03:47 19 plaintiffs to argue first on willful and put on  
03:47 20 whatever evidence they think they have.

03:47 21 MR. JAKES: I don't want to leave out  
03:47 22 indirect infringement, because I think that goes with  
03:47 23 it.

03:47 24 THE COURT: I understand. And I won't  
03:47 25 forget. I just -- I want to hear from plaintiff as to

03:47 1 what evidence they think should go to the jury.

03:47 2 MR. SIEGMUND: May I approach,  
3 Your Honor?

4 THE COURT: Uh-huh.

03:48 5 MR. SIEGMUND: Mark Siegmund on behalf of  
03:48 6 the plaintiff.

03:48 7 To kind of set the stage, Judge, in order  
03:48 8 to prevail on our claim of willfulness, we just have to  
03:48 9 show by a preponderance of the evidence that DJI knew  
03:48 10 of the patents, which is undisputed in this case, and  
03:48 11 engaged in deliberate or intentional infringement.  
03:48 12 Like I said, knowledge here is unrebutted. It's not in  
03:48 13 dispute. So we're only talking about deliberate  
03:48 14 infringement evidence here.

03:48 15 And what I have in all those slides,  
03:48 16 Your Honor, is all of DJI's engineers were not provided  
03:48 17 with the patent. They didn't take the time to read it,  
03:48 18 and all of them confirmed that they would do nothing  
03:48 19 differently, despite knowing of Textron's infringement  
03:48 20 contentions and what we alleged infringed their  
03:48 21 products. And that's pretty much quintessential  
03:48 22 evidence of infringement that should be decided by the  
03:48 23 jury.

03:48 24 So what I'd like to do, Your Honor, is in  
03:48 25 the jury instructions that you are about to give the

03:48 1 jury here, there's four factors underneath the  
03:48 2 willfulness instruction that was agreed by the parties.  
03:48 3 So I'd like to walk the Court through evidence under  
03:48 4 each of those factors.

03:48 5 So starting with Factor 1, which is  
03:49 6 whether or not DJI acted consistently with standards of  
03:49 7 behavior for its industry.

03:49 8 So if we could go to Slide 1, please,  
03:49 9 Mr. Patterson.

03:49 10 And DJI --

03:49 11 THE COURT: I can -- you can just read  
03:49 12 the four standards into the record.

03:49 13 MR. SIEGMUND: Okay. Great, Your Honor.  
03:49 14 So I read the first factor.

03:49 15 The second and third factors are whether  
03:49 16 or not DJI reasonably believed it did not infringe or  
03:49 17 that the patent was invalid and whether or not DJI made  
03:49 18 a good-faith effort to avoid infringing the '909 and  
03:49 19 '752 patents, in other words, design around it.

03:49 20 And so starting with the first factor, we  
03:49 21 have evidence of the letter that I --

03:49 22 THE COURT: I'm good. What's the next  
03:49 23 factor?

03:49 24 MR. SIEGMUND: Okay. So Factors 2 and 3,  
03:49 25 if we go to Slide 5.

03:49 1                   And this is where we'll get into the  
03:49 2 various engineers and employees of DJI discussing their  
03:49 3 knowledge of the patents and how they would not change  
03:49 4 anything whatsoever despite knowing of the allegations.

03:49 5                   So on Slide 5, you can see what  
03:49 6 Mr. Zhang, DJI's engineer, said.

03:50 7                   Did you review any of Textron's patents  
03:50 8 asserted in this case?

03:50 9                   He said no. The patents were never  
03:50 10 provided to him.

03:50 11                  If we could go to Slide 7. This one  
03:50 12 provides, I think, a pretty clear example of what I'm  
03:50 13 talking about.

03:50 14                  This is Mr. --

03:50 15                  THE COURT: I'm good. What's the final  
03:50 16 one?

03:50 17                  MR. SIEGMUND: And the fourth factor,  
03:50 18 Your Honor, is whether DJI attempted to cover up any of  
03:50 19 their evidence of infringement, which we would argue a  
03:50 20 reasonable jury could believe that based on the  
03:50 21 evidence that we adduced concerning the source code  
03:50 22 dispute that Your Honor said was relevant, Judge  
03:50 23 Gilliland said was relevant and our experts said were  
03:50 24 relevant.

03:50 25                  THE COURT: Well, I don't think that I --

03:50 1 at least from my perspective, that I hold the defendant  
03:50 2 liable for that. So -- but I don't know that I need  
03:50 3 to.

03:50 4 Okay. Let me hear a response from  
03:50 5 defendant.

03:50 6 MR. JAKES: Thank you, Your Honor.

03:50 7 We do move for a judgment as a matter of  
03:51 8 law under Rule 50, that there's no willful infringement  
03:51 9 or induced infringement.

03:51 10 Judge Gilliland in his report and  
03:51 11 recommendation, he granted our motion for a partial  
03:51 12 summary judgment, that DJI did not willfully infringe  
03:51 13 before the complaint was filed or induce infringement.

03:51 14 And in granting that motion, he said:  
03:51 15 There's adequate evidence that the defendants knew of  
03:51 16 the patents, but there's insufficient evidence that  
03:51 17 defendants knew they infringe.

03:51 18 And that's exactly why willful  
03:51 19 infringement after the complaint should also be  
03:51 20 granted.

03:51 21 THE COURT: Let me ask you this: Here's  
03:51 22 the problem I have, and I had at the last trial.  
03:51 23 Mr. Siegmund was on the other side at the other table  
03:51 24 in the last one.

03:51 25 At this stage, where it's not a summary

03:51 1 judgment stage, it's a -- in my opinion, it's a, was  
03:51 2 there evidence that was put on -- any evidence that was  
03:51 3 put on --

03:51 4 MR. JAKES: Yes.

03:51 5 THE COURT: -- disputed or not.

03:51 6 And if there is evidence, then it goes to  
03:52 7 the jury, and I can deal with it afterwards.

03:52 8 And so what do -- if that's the standard,  
03:52 9 what do I do here?

03:52 10 MR. JAKES: You should grant the judgment  
03:52 11 under Rule 50(a) because there is no evidence. A  
03:52 12 reasonable jury here couldn't find willful infringement  
03:52 13 because the evidence showed there were multiple -- now,  
03:52 14 we're talking just after the complaint was filed.

03:52 15 There are multiple reasons why DJI believed its drones  
03:52 16 didn't infringe or the claims were invalid, and they  
03:52 17 were abundantly presented to the jury.

03:52 18 We have -- Textron introduced PTX-106.  
03:52 19 That was the application to export code. And in that  
03:52 20 document, DJI warranted its technology did not infringe  
03:52 21 any other intellectual property rights.

03:52 22 And so there's no evidence of any  
03:52 23 behavior by DJI of copying, no evidence that they knew  
03:53 24 their positions were unreasonable.

03:53 25 The only thing that Textron has really

03:53 1 pointed to is statements by the engineers that they  
03:53 2 didn't review the patents. But without something that  
03:53 3 says that they had an obligation to, after the  
03:53 4 complaint was filed, and form a belief as to  
03:53 5 infringement or invalidity, then that shouldn't be  
03:53 6 enough either.

03:53 7 So we're left really with no evidence on  
03:53 8 willful infringement. And I'd say it's the same for  
03:53 9 induced infringement, and that's why we move under  
03:53 10 Rule 50(a) on induced infringement as well.

03:53 11 Because even though there was knowledge  
03:53 12 of the patents, there's insufficient evidence that the  
03:53 13 defendants knew that they infringed. They didn't  
03:53 14 induce infringement because you have to intend to  
03:53 15 encourage another's infringement. And that is a very  
03:53 16 similar standard to willful infringement, and there's  
03:53 17 no evidence of that intent either.

03:53 18 What we have, instead, is after the  
03:53 19 complaint was filed, evidence that shows the claims  
03:54 20 were not infringed or are invalid. And there's nothing  
03:54 21 to negate that or that there was a reasonable belief by  
03:54 22 DJI that those positions were not reasonable.

03:54 23 THE COURT: Let me hear a response from  
03:54 24 plaintiff just with regard to the induced infringement.

03:54 25 MR. SIEGMUND: Yes, Your Honor. I

03:54 1 actually have a case right on point, if I could pass it  
03:54 2 up to you.

03:54 3 THE COURT: Sure.

03:54 4 MR. SIEGMUND: It'll be under Subpart 3,  
03:54 5 Your Honor.

03:54 6 THE COURT: And this is --

03:54 7 MR. SIEGMUND: And it actually goes to  
03:54 8 our question on the last trial of whether or not if  
03:54 9 you -- even if you aren't inclined to find enhancement,  
03:54 10 should the question be submitted to the jury, and the  
03:54 11 Federal Circuit said yes. Absolutely. The willfulness  
03:54 12 question should be submitted to the jury.

03:54 13 But the facts of this case and the case  
03:54 14 that I handed you are strikingly similar. We have in  
03:54 15 that case, which for the record is the Ironburg  
03:55 16 Inventions Limited versus Valve Corporation case. They  
03:55 17 had notice of the patent, a failure to communicate the  
03:55 18 patent to designers and the failure to attempt to  
03:55 19 design around.

03:55 20 And that's exactly the same evidence that  
03:55 21 we have in this case, Your Honor. We have --  
03:55 22 undisputed, they had knowledge of the patent. You saw  
03:55 23 testimony in the 13 or 14 slides that I gave you that  
03:55 24 the design was not -- there's a failure to communicate  
03:55 25 the patents to the designers, and they didn't do

03:55 1 anything about it.

03:55 2 And that's the exact same case in -- in  
03:55 3 the -- and the Valve case match up almost identically  
03:55 4 to here.

03:55 5 And the Federal Circuit said that a  
03:55 6 denial of a JMOL in that case was exactly the  
03:55 7 appropriate situation, and it should have went to the  
03:55 8 jury.

03:55 9 And so our argument would be: It's the  
03:55 10 same case. It applies here. This issue should be  
03:55 11 decided by the jury.

03:55 12 And then I think Your Honor already knows  
03:55 13 this, but a finding of induced infringement does not  
03:55 14 compel a finding of willfulness. That's from the SRI  
03:55 15 case. Induced infringement is a lower standard than  
03:56 16 willfulness.

03:56 17 And we have unrebutted testimony from  
03:56 18 Dr. Michalson where he displayed the slide on induced  
03:56 19 infringement. I do not even think there was any cross  
03:56 20 that was elicited from that whatsoever. So there is  
03:56 21 actual evidence in the record.

03:56 22 Unless Your Honor has any questions, I  
03:56 23 can -- happy to circle back. Okay.

03:56 24 THE COURT: I'm good.

03:56 25 Any response to the -- this Ironburg

03:56 1 Inventions versus Valve case?

03:56 2 MR. JAKES: Your Honor, we're talking  
03:56 3 about post-complaint activity. And certainly in this  
03:56 4 case everything the jury has heard, they would be --  
03:56 5 they should conclude that DJI's positions were  
03:56 6 reasonable.

03:56 7 It's Textron's burden here. And focusing  
03:56 8 on the Chinese engineers, there are language issues  
03:56 9 here. And the idea that they -- the burden was on them  
03:56 10 to somehow come up with noninfringement or  
03:56 11 design-arounds after the suit was filed, that's not  
03:57 12 what the law requires.

03:57 13 THE COURT: Yeah. Mr. Siegmund, does it  
03:57 14 matter -- with regard to the holding in Ironburg  
03:57 15 Inventions, does it -- and let me say this also: Was  
03:57 16 this case presented to Judge Gilliland?

03:57 17 MR. SIEGMUND: No, Your Honor. That case  
03:57 18 is extremely recent. I think it was, my gosh, maybe  
03:57 19 two, three weeks --

03:57 20 THE COURT: Two weeks ago.

03:57 21 MR. SIEGMUND: Two weeks ago. So it was  
03:57 22 very recently. I don't believe he had that case,  
03:57 23 Your Honor.

03:57 24 THE COURT: Yeah.

03:57 25 MR. SIEGMUND: And then also DJI put on

03:57 1 no evidence --

03:57 2 THE COURT: Okay. I'm going to deny the  
03:57 3 motion for directed verdict.

03:57 4 So I think that means that the jury  
03:57 5 charge is --

03:57 6 MR. MEEK: Your Honor, did we get a  
03:57 7 ruling on --

03:57 8 THE COURT: Directed verdict, and  
03:57 9 indirect as well.

03:57 10 MR. MEEK: (Inaudible.)

03:57 11 THE REPORTER: Counsel, I can't hear you.

03:58 12 THE COURT: I thought I said I denied the  
03:58 13 ones earlier. If I didn't, all the motions -- let me  
03:58 14 do it this way.

03:58 15 Every motion I just heard, I'm denying.

03:58 16 MR. SIEGMUND: Got it.

03:58 17 THE COURT: So the record's clear.

03:58 18 Now, does that mean that the version  
03:58 19 subject -- I understand the objections that were made.

03:58 20 Does that mean that the charge is ready  
03:58 21 to go?

03:58 22 MR. SIEGMUND: It does, Your Honor. We  
03:58 23 were -- agreed on the willfulness instruction.

03:58 24 THE COURT: Okay. Do we have a copy of  
03:58 25 the charge?

03:58 1 And we're making copies -- can we go make  
03:58 2 copies?

03:58 3 Okay. We will go make copies. As soon  
03:58 4 as they're ready, I'll let you know. We'll bring the  
03:58 5 jury out, I'll read it to the jury, and we'll be done  
03:58 6 for the day.

04:20 7 (Recess taken.)

04:24 8 THE BAILIFF: All rise.

04:24 9 THE COURT: Please remain standing for  
04:24 10 the jury.

04:25 11 (Jury entered the courtroom.)

04:25 12 THE COURT: Thank you. You may be  
04:25 13 seated.

04:25 14 Ladies and gentlemen, I'm about to read  
04:25 15 to you the instructions of the law. You are free to  
04:25 16 listen. You're free -- you have to listen, but you are  
04:25 17 free to listen and read along, just listen. You're  
04:25 18 free to do whatever you want, but whatever's the most  
04:25 19 effective way for you to -- it's relatively long. So  
04:25 20 whatever's the most efficient and effective way for you  
04:25 21 to pay attention to what I'm saying. So...

04:25 22 Members of the jury, it is my duty and  
04:25 23 responsibility to instruct you on the law that you must  
04:26 24 apply in this case. The law contained in these  
04:26 25 instructions is the only law that you may follow.

04:26 1 It is your duty to follow what I instruct  
04:26 2 you the law is regardless of any opinion that you might  
04:26 3 have as to what the law ought to be.

04:26 4 Each of you is going to have your own  
04:26 5 printed copy -- you do have your own printed copy of  
04:26 6 these final jury instructions. So there's no need for  
04:26 7 you to take notes unless you want to.

04:26 8 If I have given you the impression during  
04:26 9 the trial that I favor either party, you must disregard  
04:26 10 that impression. If I have given you an impression in  
04:26 11 the trial that I have any opinion about anything in  
04:26 12 this case, the facts or whatever, you must disregard  
04:26 13 that impression.

04:26 14 You are the sole judges of the facts in  
04:26 15 this case. Other than these instructions to you on the  
04:26 16 law, you must disregard anything I may have said or  
04:26 17 done during the trial when you are arriving at your  
04:26 18 verdict.

04:26 19 You should consider all the instructions  
04:26 20 about the law as a whole and regard each instruction in  
04:27 21 light of the others, without isolating a particular  
04:27 22 statement or paragraph.

04:27 23 The testimony of the witnesses and other  
04:27 24 exhibits introduced by the parties constitute the  
04:27 25 evidence. The statements of counsel are not evidence.

04:27 1 They are only argument.

04:27 2 It is important for you to distinguish  
04:27 3 between the arguments of counsel and the evidence on  
04:27 4 which those arguments rest. What the lawyers say or do  
04:27 5 is not evidence.

04:27 6 You may, however, consider their  
04:27 7 arguments in light of the evidence that's been admitted  
04:27 8 and determine whether the evidence admitted in this  
04:27 9 trial supports those arguments.

04:27 10 You must determine the facts from all the  
04:27 11 testimony that you have heard and the evidence  
04:27 12 submitted. You are the judges of the facts, but in  
04:27 13 finding those facts, you must apply the law as I  
04:27 14 instruct you.

04:27 15 You are required by law to decide the  
04:27 16 case in a fair, impartial and unbiased manner based  
04:27 17 entirely on the law and the evidence presented to you  
04:27 18 within the courtroom. You may not be influenced by  
04:27 19 passion or prejudice or sympathy that you might have  
04:28 20 for either party in arriving at your verdict.

04:28 21 As you -- after the remainder of these  
04:28 22 instructions, tomorrow morning at 9:00 we will resume  
04:28 23 and you will hear closing arguments from the attorneys.

04:28 24 The statements and arguments of the  
04:28 25 attorneys, I remind you again, are not evidence. They

04:28 1 are not instructions on the law. They're intended only  
04:28 2 to assist you, the jury, in understanding the evidence  
04:28 3 and the parties' contentions.

04:28 4 A verdict form has been prepared for you.  
04:28 5 You will receive the verdict form in the jury room.  
04:28 6 And once you have reached a unanimous decision or  
04:28 7 agreement with respect to the verdict, you will have  
04:28 8 your foreperson fill in the blanks on the verdict form.  
04:28 9 He or she will date it and sign it.

04:28 10 Answer each question in the verdict form  
04:28 11 from the facts as you find them to be. Do not decide  
04:28 12 who you think should win and then answer the questions  
04:28 13 to reach that result. Your answers and your verdict  
04:29 14 must be unanimous.

04:29 15 The evidence you are to consider consists  
04:29 16 of the testimony of the witnesses here at trial or in  
04:29 17 the form of deposition that were presented to you, the  
04:29 18 documents and the exhibits that I admitted into  
04:29 19 evidence and any facts the lawyers agree to or  
04:29 20 stipulated to. You are to apply any fair inference and  
04:29 21 reasonable conclusions you draw from the facts and  
04:29 22 circumstances that you believe have been proven.  
04:29 23 Nothing else is evidence.

04:29 24 As a reminder, here are some examples of  
04:29 25 what is not evidence. The fact that Textron

04:29 1 Innovations filed the lawsuit is not evidence that it  
04:29 2 is entitled to a judgment in this case. The fact of  
04:29 3 making a claim in a lawsuit by itself does not in any  
04:29 4 way tend to establish the claim and is not evidence.

04:29 5 Likewise, the fact that DJI has raised  
04:29 6 arguments against the claims asserted is not evidence  
04:29 7 that it is entitled to a judgment in its favor. The  
04:29 8 act of making defensive arguments by themselves do not  
04:30 9 in any way tend to establish such arguments have merit.  
04:30 10 They are not evidence.

04:30 11 Statements, arguments and questions by  
04:30 12 the attorneys are not evidence. Objections to  
04:30 13 questions are not evidence. The attorneys that are  
04:30 14 seated in front of you objected if they believed that  
04:30 15 the documents and evidence that was be -- attempted to  
04:30 16 being offered into evidence was improper under the  
04:30 17 rules of evidence.

04:30 18 During the trial I may not have let you  
04:30 19 hear the answers to some of the questions the lawyers  
04:30 20 asked. I may have ruled that you could not see some of  
04:30 21 the exhibits the lawyers wanted you to see. Further,  
04:30 22 sometimes I may have ordered you to disregard things  
04:30 23 that you saw or heard or struck things from the record.  
04:30 24 You must follow these rulings and completely ignore all  
04:30 25 those things.

04:30 1                   Do not speculate about what a witness  
04:30 2 might have said or what an exhibit might have shown.  
04:30 3 These things are not evidence. You are bound by your  
04:30 4 oath to not let them influence your decision in any  
04:30 5 way.

04:30 6                   Generally speaking, there are two types  
04:31 7 of evidence. One is direct such as the testimony of a  
04:31 8 witness. The other is indirect or circumstantial.  
04:31 9 Circumstantial evidence is evidence that proves from a  
04:31 10 fact which you can logically conclude another fact  
04:31 11 exists.

04:31 12                   As a general rule, the law makes no  
04:31 13 distinction between direct and circumstantial evidence.  
04:31 14 It simply requires that you determine the facts from  
04:31 15 all of the evidence that you have heard in the case,  
04:31 16 whether direct or circumstantial or some combination.

04:31 17                   As I instructed you before the trial  
04:31 18 began, in judging the facts you must consider all the  
04:31 19 evidence, whether direct or circumstantial. But that  
04:31 20 does not mean that you have to accept or believe all  
04:31 21 the evidence. It is entirely up to you to give the  
04:31 22 evidence you received in the case whatever you  
04:31 23 believe -- whatever weight you individually believe it  
04:31 24 deserves. And I emphasize individually believe it  
04:31 25 deserves. It'll be up to each of you to decide which

04:31 1 witness to believe or not believe, the weight to give  
04:31 2 any testimony you've heard and how much of any witness'  
04:32 3 testimony you choose to accept or reject.

04:32 4 You should never be influenced by any  
04:32 5 ruling on any -- or any objection that I made. If I  
04:32 6 sustained an objection, pretend the question wasn't  
04:32 7 asked. If there was an answer given, ignore it. If I  
04:32 8 overruled the objection, act like the objection was  
04:32 9 never made.

04:32 10 If I gave any limiting instruction at  
04:32 11 trial, follow it. Any testimony I told you to exclude  
04:32 12 or disregard is not evidence. It may not be  
04:32 13 considered.

04:32 14 You must not conduct any independent  
04:32 15 research or investigation. You must make your decision  
04:32 16 based only on the evidence as I define it here and  
04:32 17 nothing more.

04:32 18 Some evidence was admitted for a limited  
04:32 19 purpose only. When I instruct you that an item of  
04:32 20 evidence has been admitted for a limited purpose, you  
04:32 21 must consider it only for that limited purpose and no  
04:32 22 other.

04:32 23 Witnesses. You alone determine the  
04:32 24 credibility or truthfulness of the witnesses. No  
04:32 25 matter what language people speak, they have the right

04:33 1 to have their testimony heard and understood.

04:33 2 You heard a trial in which interpreter --  
04:33 3 in which an interpreter translated for one or more of  
04:33 4 the participants. The interpreter was required to  
04:33 5 remain neutral. The interpreter was required to  
04:33 6 translate between English and Chinese accurately and  
04:33 7 impartially to the best of his or her skill and  
04:33 8 judgment.

04:33 9 It is now up to you to evaluate the  
04:33 10 interpreted testimony as you would weigh any other  
04:33 11 testimony. You must not give it -- interpreted  
04:33 12 testimony any greater weight or lesser weight than you  
04:33 13 would if the witness had spoken in English.

04:33 14 Keep in mind a person might speak some  
04:33 15 English without speaking it fluently. The person has  
04:33 16 the right to the services of an interpreter, therefore,  
04:33 17 you should not give greater or lesser weight to a  
04:33 18 person's translated testimony based on any conclusion  
04:33 19 regarding the extent to which that person speaks  
04:33 20 English.

04:33 21 In weighing the testimony of a witness,  
04:33 22 you may consider their manner and demeanor on the  
04:33 23 witness stand, any feeling or interest they have in the  
04:34 24 case, any prejudice or bias about the case and the  
04:34 25 consistency or inconsistency of the witness' testimony

04:34 1 considered in the light of all circumstances.

04:34 2 Has the witness been contradicted by  
04:34 3 other credible evidence? Has the witness made  
04:34 4 statements at other times that are contrary to those  
04:34 5 made here on the witness stand? You must give the  
04:34 6 testimony of each witness the credibility you believe  
04:34 7 it deserves.

04:34 8 Even though a witness may be a party to  
04:34 9 the action and, therefore, interested in the outcome,  
04:34 10 you may accept the testimony if it is not contradicted  
04:34 11 by direct evidence or by any inference that may be  
04:34 12 drawn from the evidence if you believe the testimony.

04:34 13 You are not to decide the case by  
04:34 14 counting the number of witnesses who have testified for  
04:34 15 each of the opposing sides. Witness testimony is  
04:34 16 weighed. Witnesses are not counted.

04:34 17 The test is not the relative number of  
04:34 18 witnesses but the relative convincing force of the  
04:34 19 evidence. The testimony of a single witness is  
04:34 20 sufficient to prove any fact even if a greater number  
04:34 21 of witnesses testified to the contrary, if after you  
04:35 22 have considered all the evidence, you choose to believe  
04:35 23 that one single witness.

04:35 24 Certain testimony was presented to you  
04:35 25 through a deposition. A deposition is a sworn recorded

04:35 1 answer to questions a witness was asked in advance of  
04:35 2 this trial.

04:35 3 Under some circumstances, a witness  
04:35 4 cannot be present to testify from the witness stand.  
04:35 5 That witness' testimony may be presented under oath in  
04:35 6 the form of a deposition. Sometime before this trial,  
04:35 7 attorneys representing the parties in the case  
04:35 8 questioned those witnesses under oath. There was a  
04:35 9 court reporter present who recorded the testimony. The  
04:35 10 questions and answers have been show to you.

04:35 11 The deposition testimony is entitled to  
04:35 12 the same consideration and must be weighed and  
04:35 13 otherwise considered by you in the same way as if the  
04:35 14 witness had been present and had testified from the  
04:35 15 witness stand in court.

04:35 16 In addition, some of the video recordings  
04:35 17 of witnesses you see may be of lower quality because  
04:35 18 the witnesses had their depositions taken remotely.  
04:35 19 You should not hold the quality of the video or the  
04:36 20 location of the witness or any other circumstances  
04:36 21 arriving -- arising from travel restrictions against  
04:36 22 either party.

04:36 23 You heard from experts in this case.  
04:36 24 Expert testimony is testimony from a person who has a  
04:36 25 special skill or knowledge in some science or

04:36 1 profession or business. This skill or knowledge is not  
04:36 2 common to the average person but was acquired by the  
04:36 3 expert through extra special study or experience.

04:36 4 In weighing expert testimony, you may  
04:36 5 consider the expert's qualifications, the reasons for  
04:36 6 his opinions, the reliability of the information  
04:36 7 supporting those opinions, as well as all the factors  
04:36 8 I've already previously mentioned for weighing the  
04:36 9 testimony of any fact witness. Expert testimony should  
04:36 10 receive whatever weight and credit you think is  
04:36 11 appropriate given all the other evidence in the case.

04:36 12 You're not required to accept the opinion  
04:36 13 of the expert. Rather, you are free to accept it or  
04:36 14 reject it just as with all other witnesses.

04:36 15 The fact a person has brought a lawsuit  
04:36 16 and is in court seeking damages creates no inference  
04:37 17 that that person is entitled to a judgment. Anyone can  
04:37 18 make a claim and anyone can file a lawsuit. The act of  
04:37 19 making a claim in a lawsuit by itself does not tend to  
04:37 20 establish the claim -- that claim and is not evidence.

04:37 21 A stipulation is an agreement. When  
04:37 22 there is no dispute about certain facts, the attorneys  
04:37 23 may agree or stipulate to those facts. You must accept  
04:37 24 or stipulate -- you must accept a stipulated fact as  
04:37 25 evidence and treat that fact as having been proven here

04:37 1 in court.

04:37 2 When testimony or an exhibit is admitted  
04:37 3 for a limited purpose, you may consider that testimony  
04:37 4 or exhibit only for the specific limited purpose for  
04:37 5 which it was admitted.

04:37 6 Charts and summaries. Certain charts and  
04:37 7 summaries were shown to you solely to help explain or  
04:37 8 summarize facts disclosed by other books, records or  
04:37 9 other documents in evidence. These charts and  
04:37 10 summaries are not evidence or proof of any facts unless  
04:37 11 I specifically admitted the chart or summary into  
04:37 12 evidence. You must determine the facts exclusively  
04:37 13 from the evidence.

04:37 14 Certain exhibits were shown to you such  
04:38 15 as PowerPoint presentations, posters, models or  
04:38 16 illustrations. They are not themselves evidence. It  
04:38 17 is a party's description, picture or model used to  
04:38 18 describe something involved in the trial. If your  
04:38 19 recollection of the evidence differs from any exhibit  
04:38 20 you saw, rely on your recollection.

04:38 21 Do not let bias, prejudice or sympathy  
04:38 22 play any part in your deliberations. Whether you're  
04:38 23 familiar with one party or the other should not play  
04:38 24 any part in your deliberations. A corporation and all  
04:38 25 persons are equal before the law. They must be treated

04:38 1 equally in a court of justice.

04:38 2 In any legal action facts must be proven  
04:38 3 by a required amount of evidence known as a burden of  
04:38 4 proof. This is a civil case. Textron Innovations has  
04:38 5 the burden of proving patent infringement, willfulness  
04:38 6 and damages by the standard of proof of a preponderance  
04:38 7 of the evidence.

04:38 8 A preponderance of the evidence means  
04:38 9 evidence that persuades you that a claim is more  
04:38 10 probably true than not. Sometimes this is talked about  
04:39 11 as being greater -- the greater weight and degree of  
04:39 12 credible testimony.

04:39 13 DJI does not have any burden of proof on  
04:39 14 the issues of patent infringement, willfulness and  
04:39 15 damages.

04:39 16 We'll do a different standard which is  
04:39 17 clear and convincing. The defendant, DJI, has the  
04:39 18 burden of proving their patent invalidity case by clear  
04:39 19 and convincing evidence.

04:39 20 Clear and convincing evidence is evidence  
04:39 21 that produces, in your mind, a firm belief or  
04:39 22 conviction as to the truth of the matter sought to be  
04:39 23 established. It is so clear, direct, weighty and  
04:39 24 convincing as to enable you to come to a clear  
04:39 25 conviction without hesitancy.

04:39 1                   This standard is different from a  
04:39 2 preponderance of the evidence standard which applies to  
04:39 3 the plaintiff's burden of proving infringement.

04:39 4                   These standards of -- are different from  
04:39 5 what you've heard about in criminal proceedings where  
04:39 6 facts must be proven beyond a reasonable doubt, the  
04:39 7 highest level we have.

04:39 8                   On a scale of the various standards of  
04:40 9 proof, as you move first from the preponderance of the  
04:40 10 evidence, where proof need only be sufficient to tip  
04:40 11 the scales in favor of a party proving the fact, to the  
04:40 12 other end which is beyond a reasonable doubt, where the  
04:40 13 fact must be proven to a very high degree of certainty,  
04:40 14 you can think of clear and convincing evidence, that  
04:40 15 standard, as being between the two ends of the spectrum  
04:40 16 or the two different standards.

04:40 17                   Textron Innovations does not have any  
04:40 18 burden of proof on the issue of patent validity or  
04:40 19 prior art.

04:40 20                   As I did at the start of the case, I will  
04:40 21 now give you a summary of each side's contentions in  
04:40 22 the case. I'll provide you with detailed instructions  
04:40 23 on what each side must prove to win on each of its  
04:40 24 contentions.

04:40 25                   Textron Innovations seeks money damages

04:40 1 from DJI for allegedly infringing the '909 and '752  
04:40 2 patents by making, importing, using, selling and  
04:40 3 offering for sale products that Textron Innovations  
04:40 4 argues are covered by Claims 1, 7, 10 and 11 of the  
04:41 5 '909 patent and Claim 13 of the '752 patent.

04:41 6 The parties and I have sometimes referred  
04:41 7 to these claims collectively as the "asserted claims."  
04:41 8 Textron Innovations also argues that DJI has actively  
04:41 9 induced infringement of the asserted claims by others.

04:41 10 The features that are alleged to infringe  
04:41 11 are as follows: 1, Follow Me; 2, ActiveTrack 1.0, 2.0,  
04:41 12 3.0, 4.0 and 5.0; and, 3, hovering.

04:41 13 The defendant denies that it infringed  
04:41 14 the asserted claims and argues that, in addition, the  
04:41 15 asserted claims against it are invalid.

04:41 16 Your job is to decide whether DJI has  
04:41 17 infringed the asserted claims and whether any of those  
04:41 18 claims are invalid.

04:41 19 If you decide that any of the asserted  
04:41 20 claims has been infringed and also is not invalid, then  
04:41 21 you'll need to decide any money damages to be awarded  
04:41 22 to Textron Innovations to compensate it for that  
04:42 23 infringement.

04:42 24 You will also need to make a finding as  
04:42 25 to whether the infringement was willful. If you decide

04:42 1 any infringement was willful, the decision should not  
04:42 2 affect any damages award you make. I will do the job  
04:42 3 of taking willfulness into account later.

04:42 4 Before you can decide many of the issues  
04:42 5 in this case, you'll need to understand the role of  
04:42 6 patent claims.

04:42 7 The patent claims are the numbered  
04:42 8 sentences at the end of each patent. The claims are  
04:42 9 important because it is the words of the claim that  
04:42 10 define what a patent covers.

04:42 11 The figures and texts in the rest of the  
04:42 12 patent provide a description and are examples of the  
04:42 13 invention and provide a context for the claims, but it  
04:42 14 is the claims that define the breadth of the patent's  
04:42 15 coverage; therefore, what a patent covers depends, in  
04:42 16 turn, on what each of its claims covers.

04:42 17 To know what a claim covers, a claim sets  
04:42 18 forth in words a set of requirements. Each claim sets  
04:42 19 forth its requirements in a single sentence. The  
04:42 20 coverage of a patent is assessed claim by claim.

04:43 21 When a product or a method meets all the  
04:43 22 requirements of a claim, the claim is said to cover  
04:43 23 that product or method and that product or method is  
04:43 24 said to fall within the scope of that claim; in other  
04:43 25 words, a claim covers a product or method where each of

04:43 1 the claim elements or limitations is present in the  
04:43 2 product or method.

04:43 3 You will need to understand what each  
04:43 4 claim covers in order to decide whether or not there's  
04:43 5 infringement of the claim and decide whether or not the  
04:43 6 claim is invalid. The first step is to understand the  
04:43 7 meaning of the words used in the patent claim.

04:43 8 The law says that it is my role to define  
04:43 9 the terms of the claim; it is your role to apply my  
04:43 10 definitions of the terms I've construed to the issues  
04:43 11 that you are asked to decide in the case.

04:43 12 Therefore, as I explained to you at the  
04:43 13 start of the case, I've determined the meaning of  
04:43 14 certain claim terms. I've provided you my definitions  
04:43 15 of certain claim terms.

04:43 16 "Selected velocity and/or position,"  
04:43 17 plain and ordinary meaning;

04:43 18 "A flight control system for a rotary  
04:43 19 aircraft, the rotary aircraft having a longitudinal  
04:44 20 controller, a lateral controller, a directional  
04:44 21 controller and a vertical controller, the control  
04:44 22 system comprising," preamble is limiting with plain and  
04:44 23 ordinary meaning;

04:44 24 "Detent position," plain and ordinary  
04:44 25 meaning;

04:44 1 "Forward speed holding" -- "forward speed  
04:44 2 hold loop... wherein the forward speed hold loop  
04:44 3 automatically engages when the longitudinal controller  
04:44 4 is returned to a detent position and the aircraft  
04:44 5 groundspeed is outside a first groundspeed threshold,"  
04:44 6 plain and ordinary meaning;

04:44 7 "Wherein the lateral speed hold loop  
04:44 8 automatically engages when the lateral controller is  
04:44 9 returned to a detent position and the aircraft's  
04:44 10 groundspeed is outside the first groundspeed threshold;  
04:44 11 and wherein lateral maneuverability of the rotary  
04:44 12 aircraft is controlled by the lateral speed hold loop  
04:44 13 when the lateral controller is out of the detent  
04:44 14 position," plain and ordinary meaning;

04:44 15 "Flight in the first groundspeed  
04:44 16 threshold," plain and ordinary meaning.

04:44 17 You must accept my definitions to these  
04:44 18 words in the claim as being as -- in the claims as  
04:45 19 being correct.

04:45 20 It is your job to take the definitions  
04:45 21 and apply them to the issues you're deciding, including  
04:45 22 the issues of infringement and validity.

04:45 23 The beginning portion, which is known as  
04:45 24 the preamble of a claim, often uses the word  
04:45 25 "comprising." The word "comprising," when used in the

04:45 1 preamble, means "including but not limited to" or  
04:45 2 "containing but not limited to."

04:45 3 When "comprising" is used in the  
04:45 4 preamble, if you decide that an accused product  
04:45 5 includes all the requirements of that claim, the claim  
04:45 6 is infringed. This is true even if the accused product  
04:45 7 contains additional elements.

04:45 8 For any words in the claim for which I  
04:45 9 have not provided you with the definition, you should  
04:45 10 apply the ordinary meaning of those terms in the field  
04:45 11 of rotorcraft flight.

04:45 12 You should not take my definition of the  
04:45 13 language of the claims as an indication that I have any  
04:45 14 view regarding how you decide the issues that you as  
04:45 15 the judges are asked to decide, such as infringement or  
04:46 16 invalidity. Those are up to you.

04:46 17 This case includes two types of patent  
04:46 18 claims; independent and dependent.

04:46 19 An independent claim sets forth all the  
04:46 20 requirements that must be met in order to be covered by  
04:46 21 the claim. It is not necessary to look at any other  
04:46 22 claim to determine what an independent claim covers.

04:46 23 The following asserted claims are  
04:46 24 independent: Claims 1 and 7 of the '909 patent;  
04:46 25 Claim 13 of the '752 patent.

04:46 1                   The remainder of the asserted claims are  
04:46 2 dependent claims. A dependent claim does not itself  
04:46 3 recite all the requirements of the claim but refers to  
04:46 4 another claim for at least some of its requirements.

04:46 5 In this way, the claim depends from another claim.

04:46 6                   A dependent claim incorporates all the  
04:46 7 requirements of the claim to which it refers. The  
04:46 8 dependent claim then adds its own additional  
04:46 9 requirements.

04:46 10                  To determine what a dependent claim  
04:46 11 covers, it is necessary to look at both the dependent  
04:46 12 claim and any other claims to which it refers.

04:46 13                  A product that meets all the requirements  
04:47 14 of both the dependent claim and the claims to which it  
04:47 15 refers is covered by the dependent claim.

04:47 16                  Allow me to instruct you on how to decide  
04:47 17 whether or not the plaintiff has proven that defendant  
04:47 18 DJI has infringed either or both of the '909 and '752  
04:47 19 patents.

04:47 20                  Infringement is assessed on a  
04:47 21 claim-by-claim basis, therefore, there may be  
04:47 22 infringement as to one claim but not as to another.

04:47 23                  In this case, there are two possible ways  
04:47 24 a claim could be infringed. The first is called direct  
04:47 25 infringement, and the second is active inducement.

04:47 1 Active inducement is referred to as indirect  
04:47 2 infringement.

04:47 3 There cannot be indirect infringement  
04:47 4 without someone else engaging in direct infringement.

04:47 5 In this case, plaintiff has alleged that defendant has  
04:47 6 directly infringed the '909 and '752 patents.

04:47 7 In addition, plaintiff has alleged that  
04:47 8 others directly infringed the '909 and '752 patent and  
04:48 9 that the defendant is liable for actively inducing that  
04:48 10 direct infringement by the others.

04:48 11 To prove infringement, plaintiff must  
04:48 12 prove that the requirements for one or more of these  
04:48 13 types of infringement are met by a preponderance of the  
04:48 14 evidence, that is, that it's more likely than not that  
04:48 15 all the requirements of one or more of each of these  
04:48 16 types of infringement have been proven.

04:48 17 Allow me to explain now the types of  
04:48 18 infringement in detail.

04:48 19 First is literal infringement.

04:48 20 There are two types of literal  
04:48 21 infringement: First, literal infringement and, two,  
04:48 22 infringement under the doctrine of -- let me start  
04:48 23 over. I think I said -- there are two types of direct  
04:48 24 infringement. One is literal, and one is infringement  
04:48 25 under the doctrine of equivalents.

04:48 1                   Unlike indirect infringement, which you  
04:48 2 must hear about in a minute, a party can directly  
04:48 3 infringe a patent without knowing of the patent or  
04:48 4 without knowing that what the party was doing  
04:49 5 constitutes patent infringement.

04:49 6                   To prove direct infringement by literal  
04:49 7 infringement, plaintiff must prove by a preponderance  
04:49 8 of the evidence, more likely than not, that the  
04:49 9 defendant made, used, sold, offered for sale within or  
04:49 10 imported in the United States a product or method that  
04:49 11 meets all the requirements of a claim and did so  
04:49 12 without the permission of the plaintiff during the time  
04:49 13 the '909 patent and '752 patents were in force.

04:49 14                  You must compare the product or method  
04:49 15 with each and every one of the requirements of a claim  
04:49 16 to determine whether all the requirements of that claim  
04:49 17 are met.

04:49 18                  Direct infringement of a method claim  
04:49 19 occurs when all steps of a claimed method are performed  
04:49 20 by a single party.

04:49 21                  You must determine separately for each  
04:49 22 asserted claim whether or not there is infringement.  
04:49 23 For dependent claims, if you find that a claim to which  
04:49 24 the dependent claim refers is not infringed, there  
04:49 25 cannot be infringement of that dependent claim.

04:49 1 On the other hand, if you find that an  
04:50 2 independent claim has been infringed, you must still  
04:50 3 decide separately whether the product meets the  
04:50 4 additional requirements of any claim that depend from  
04:50 5 the independent claim to determine whether those  
04:50 6 dependent claims have also been infringed.

04:50 7 A dependent claim includes all the  
04:50 8 requirements of any of the claims to which it refers  
04:50 9 plus additional requirements of its own.

04:50 10 If a company makes, uses, sells, offers  
04:50 11 to sell within or imports in the United States a  
04:50 12 product that does not literally meet all the elements  
04:50 13 of a claim and thus does not literally infringe that  
04:50 14 claim, there can still be direct infringement if that  
04:50 15 product satisfies that claim element under the doctrine  
04:50 16 of equivalents.

04:50 17 Under the doctrine of equivalents -- or  
04:50 18 you may hear it as DOE -- a product infringes a claim  
04:50 19 if the accused product contains elements that literally  
04:50 20 meet or are equivalent to each and every element of the  
04:50 21 claim. You may find that an element or step is  
04:50 22 equivalent to an element of a claim that is not met  
04:50 23 literally if a person having ordinary skill in the  
04:51 24 field of rotorcraft flight would have considered the  
04:51 25 differences between them to be insubstantial, or would

04:51 1 have found that the structure: (1) performs  
04:51 2 substantially the same function and (2) works in  
04:51 3 substantially the same way (3) to achieve substantially  
04:51 4 the same result as the elements of the claim.

04:51 5 In order to prove infringement by  
04:51 6 equivalents plaintiff must prove the equivalency of the  
04:51 7 structure to the claim element by a preponderance of  
04:51 8 the evidence. Thus, each element of a claim must be  
04:51 9 met by the accused product either literally or under  
04:51 10 the doctrine of equivalents for you to find  
04:51 11 infringement.

04:51 12 Known interchangeability of the claim  
04:51 13 elements and the proposed equivalent is a factor that  
04:51 14 can support a finding of infringement under the  
04:51 15 doctrine of equivalents. In order for the structure to  
04:51 16 be considered interchangeable, the claim element must  
04:51 17 have been known at the time of the alleged infringement  
04:51 18 to a person having ordinary skill in the field of  
04:51 19 technology of the patent. Interchangeability at the  
04:52 20 present time is not sufficient.

04:52 21 Plaintiff alleges that defendant is  
04:52 22 liable for the infringement by actively inducing other  
04:52 23 entities to directly infringe the '909 and '752  
04:52 24 patents. As with direct infringement, you must  
04:52 25 determine whether there's been active inducement on a

04:52 1 claim-by-claim basis.

04:52 2 Defendant is liable for active inducement  
04:52 3 of a claim only if Textron Innovations proves by a  
04:52 4 preponderance of the evidence:

04:52 5 (1) the acts that are actually carried  
04:52 6 out by the other entity directly infringe that claim;  
04:52 7 (2) that DJI took action during the time  
04:52 8 the '909 and '752 patents were enforced that was  
04:52 9 intended to cause and led to the infringing acts by the  
04:52 10 other entity; and,

04:52 11 (3) that DJI was aware of the '909 and  
04:52 12 '752 patents and knew that the acts, if taken, would  
04:52 13 constitute infringement of the corresponding patent, or  
04:52 14 that DJI believed there was a high probability that the  
04:52 15 acts by the other entity would infringe the '909 and  
04:52 16 '752 patents and DJI took deliberate steps to avoid  
04:52 17 learning of that infringement.

04:52 18 If you find that DJI was aware of the  
04:53 19 patent but believed that it's -- the acts encouraged  
04:53 20 did not infringe the patent, they're not liable for  
04:53 21 inducement.

04:53 22 In order to establish active inducement  
04:53 23 or infringement, it is not sufficient that another  
04:53 24 entity or person itself directly infringes the claim.  
04:53 25 Nor is it sufficient that defendant was aware of the

04:53 1 acts by the other entity or person that allegedly  
04:53 2 constitute that direct infringement.

04:53 3                   Rather, in order to find active  
04:53 4 inducement or infringement, you must find either that  
04:53 5 defendants specifically intended the other entity or  
04:53 6 person to infringe the '909 and '752 patents, or the  
04:53 7 defendant believed that there was a high probability  
04:53 8 that the other entity or person would infringe the '909  
04:53 9 and '752 patents but deliberately avoided learning the  
04:53 10 infringing nature of the other entity or person's acts.

04:53 11                   The mere fact, if true, that defendant  
04:53 12 knew or should have known that there's a substantial  
04:53 13 risk that the other entity or person's acts would  
04:54 14 infringe the '909 or '752 patents would not be  
04:54 15 sufficient to support a finding of active inducement  
04:54 16 infringement.

04:54 17                   Willful infringement. In this case  
04:54 18 plaintiff argues that defendant willfully infringed the  
04:54 19 '909 and '752 patents. If you have decided that DJI  
04:54 20 has infringed, you must go on and address the  
04:54 21 additional issue of whether or not it was willful.

04:54 22                   Willfulness requires you to determine  
04:54 23 whether Textron Innovations proved it is more likely  
04:54 24 than not that DJI knew of Textron Innovations' patents  
04:54 25 and that the infringement by defendant was intentional.

04:54 1 You may not determine that the infringement was willful  
04:54 2 just because the defendant was aware of the '909 and  
04:54 3 '752 patents and infringed them. Instead, you must  
04:54 4 also find that defendant deliberately infringed the  
04:54 5 '909 and '752 patents.

04:54 6 To determine whether the defendant acted  
04:55 7 willfully, consider all facts and assess their  
04:55 8 knowledge at the time of the challenged conduct. These  
04:55 9 are facts that you should consider -- these are some  
04:55 10 facts. You can consider whatever you care to.

04:55 11 (1) Whether or not DJI acted consistently  
04:55 12 with the standard of behavior for its industry;

04:55 13 (2) Whether or not DJI reasonably  
04:55 14 believed it did not infringe or that the patent was  
04:55 15 invalid;

04:55 16 (3) Whether or not DJI made a good-faith  
04:55 17 effort to avoid infringing the '909 and '752 patents.

04:55 18 For example, whether DJI attempted to design around the  
04:55 19 '909 and '752 patents; and,

04:55 20 (4) Whether or not DJI tried to cover up  
04:55 21 its infringement.

04:55 22 You may not assume that merely because  
04:55 23 the defendant did not obtain a legal opinion about  
04:55 24 whether it infringed the '909 and '752 patents, that  
04:55 25 the opinion would have been unfavorable. The absence

04:55 1 of legal opinion may not be used by you to find that  
04:55 2 defendant acted willfully. Rather, the issue is  
04:55 3 whether, considering all the facts, plaintiff has  
04:55 4 established the defendants' conduct was willful.

04:56 5 Because DJI could not produce certain  
04:56 6 source code related to certain functions and some  
04:56 7 function during discovery, you should presume that the  
04:56 8 source code would have been favorable to Textron  
04:56 9 Innovations and Textron Innovations' infringement  
04:56 10 allegations regarding the '752 patent.

04:56 11 I will now instruct you on the rules you  
04:56 12 must follow in deciding whether or not DJI has proven  
04:56 13 that the asserted claims of the '909 and '752 patents  
04:56 14 are invalid. To prove that any claim of a patent is  
04:56 15 invalid, DJI must persuade you by clear and convincing  
04:56 16 evidence. That is, you must be left with a clear  
04:56 17 conviction the claim is invalid.

04:56 18 In order for someone to be entitled to a  
04:56 19 patent, the invention must actually be new and not  
04:56 20 obvious over what had come before, which is referred to  
04:56 21 as the prior art. Prior art is considered in  
04:56 22 determining whether the asserted claims are anticipated  
04:56 23 or obvious.

04:56 24 Prior art may include items that are  
04:56 25 publicly known or that have been used or offered for

04:57 1 sale or references such as publication or patents that  
04:57 2 disclose the claimed invention or elements of the  
04:57 3 claimed invention.

04:57 4 Defendant contends the following is prior  
04:57 5 art to the '909 patent:

04:57 6 United States Patent No. 6,868,314,  
04:57 7 referred to as Frink.

04:57 8 Defendant contends the following's prior  
04:57 9 art to the '752 patent:

04:57 10 Gold, Phillip J, et al., "The Design and  
04:57 11 Pilot Evaluation of the RAH-66 Comanche Selectable  
04:57 12 Control Modes."

04:57 13 There is no dispute Gold qualifies as  
04:57 14 prior art to the '752 patent.

04:57 15 For purposes of evaluating whether any  
04:57 16 dispute or reference or system qualifies as prior art,  
04:57 17 the filing dates for the asserted patent are March 25,  
04:57 18 2004, and for the '909 -- for the '909 patent, and  
04:57 19 July 15, 2011 for the '752 patent.

04:58 20 What is anticipation? In order for  
04:58 21 someone to be entitled to a patent, the invention must  
04:58 22 actually be new. Defendant contends that the asserted  
04:58 23 claims of the '909 and '752 patents are invalid because  
04:58 24 the claimed inventions are anticipated. DJI must  
04:58 25 convince you of this by clear and convincing evidence

04:58 1 that the evidence highly probably demonstrates that the  
04:58 2 claim is -- is or are invalid.

04:58 3 Specifically, defendant contends the  
04:58 4 following piece of prior art anticipates the asserted  
04:58 5 claims of the '909 patent: Frink. Defendant also  
04:58 6 contends that the following piece of prior art  
04:58 7 anticipates the asserted claim of the '752 patent:  
04:58 8 Gold.

04:58 9 Anticipation must be determined on a  
04:58 10 claim-by-claim basis. Defendant must prove by clear  
04:58 11 and convincing evidence that all the requirements of a  
04:58 12 claim are present in a single piece of prior art. A  
04:58 13 prior art system is considered a single piece of art,  
04:58 14 even if multiple documents are used to describe that  
04:58 15 system, as it is the system itself that is the prior  
04:58 16 art.

04:58 17 However, anticipation does not permit an  
04:59 18 additional piece of prior art to supply a missing  
04:59 19 limitation. To anticipate the invention, the prior art  
04:59 20 does not have to use the same words as used in the  
04:59 21 claims. But all the requirements of the claim must  
04:59 22 have been disclosed and arranged as in the claim.

04:59 23 The claim requirements may either be  
04:59 24 disclosed expressly or inherently. That is necessarily  
04:59 25 implied such that the person having ordinary skill in

04:59 1 the art in the technology of the invention, looking at  
04:59 2 that one reference, could make and use the claimed  
04:59 3 invention.

04:59 4 Where defendant is relying on prior art  
04:59 5 that was not considered by the PTO during its  
04:59 6 examination, you may consider whether the prior art is  
04:59 7 significantly different and more relevant than the  
04:59 8 prior art that the plaintiff -- that the PTO did  
04:59 9 consider. If you decide it is different and more  
04:59 10 relevant, you may weigh that prior art more heavily  
04:59 11 when considering whether the challenger has carried its  
04:59 12 clear and convincing burden of proving invalidity.

04:59 13 If a dependent claim is anticipated by  
04:59 14 the prior art, then the claims from which it depends  
05:00 15 are necessarily anticipated as well.

05:00 16 Obviousness. Even though an invention  
05:00 17 may not have been identically disclosed or described  
05:00 18 before it was made by an inventor, in order to be  
05:00 19 patentable, the invention must also not have been  
05:00 20 obvious to a person of ordinary skill in the field of  
05:00 21 rotorcraft flight at the time the invention was made.

05:00 22 Defendant may establish by -- the patent  
05:00 23 claim is invalid by proving by clear and convincing  
05:00 24 evidence that the claimed invention would have been  
05:00 25 obvious to persons having ordinary skill in the art at

05:00 1 the time the invention was made in the field of  
05:00 2 rotorcraft flight.

05:00 3 In determining whether a claimed  
05:00 4 invention is obvious, you must consider the level of  
05:00 5 ordinary skill in the field of rotorcraft flight that  
05:00 6 someone would have had at the time the invention was  
05:00 7 made, the scope and content of prior art, any  
05:00 8 differences between the prior art and the claimed  
05:00 9 invention.

05:00 10 Do not use hindsight. Consider only what  
05:01 11 was known at the time of the invention.

05:01 12 Keep in mind that the existence of each  
05:01 13 and every element of the claimed invention in the prior  
05:01 14 art does not necessarily prove obviousness. Most, if  
05:01 15 not all, inventions rely on building blocks of prior  
05:01 16 art. When considering the different prior art  
05:01 17 references, keep in mind that a prior art system is  
05:01 18 considered a single piece of art even if multiple  
05:01 19 documents are used to describe that system, as it is  
05:01 20 the system itself that is the prior art.

05:01 21 In considering whether a claimed  
05:01 22 invention is obvious, you should consider whether at  
05:01 23 the time of the claimed invention there is a reason  
05:01 24 that would have prompted a person having ordinary skill  
05:01 25 in the field of the invention to combine the known

05:01 1 elements in the prior art in a way as the claimed  
05:01 2 invention does, taking into account such factors as:  
05:01 3 (1) Whether the claimed invention was  
05:01 4 merely the predictable result of using prior art  
05:01 5 elements according to their known functions;  
05:01 6 (2) Whether the claimed invention  
05:01 7 provides an obvious solution to a known problem in the  
05:01 8 relevant field;  
05:01 9 (3) Whether the prior art teaches or  
05:02 10 suggests the desirability of combining elements claimed  
05:02 11 in the invention;  
05:02 12 (4) Whether the prior art teaches away  
05:02 13 from combining elements of the claimed invention;  
05:02 14 (5) Whether it would have been obvious to  
05:02 15 try the combinations of elements, such as when there is  
05:02 16 a design incentive or market pressure to solve a  
05:02 17 problem and there are a finite number of identified,  
05:02 18 predictable solutions.  
05:02 19 To find it rendered the claimed invention  
05:02 20 obvious, you must find that the prior art provided a  
05:02 21 reasonable expectation of success. Obvious to try is  
05:02 22 not sufficient in unpredictable technologies.  
05:02 23 In determining whether the claimed  
05:02 24 invention is obvious, you should take into account any  
05:02 25 objective evidence, sometimes called secondary

05:02 1 considerations, that may shed light on whether or not  
05:02 2 the claimed invention is obvious, such as:  
05:02 3                   Whether the claimed invention was  
05:02 4 commercially successful as a result of the merits of  
05:02 5 the claimed invention (rather than the result of the  
05:02 6 design needs or market-pressure advertising or similar  
05:02 7 activities);  
05:02 8                   Whether the claimed invention satisfied a  
05:02 9 long-felt need;  
05:03 10                  Whether others had tried and failed to  
05:03 11 make the claimed invention;  
05:03 12                  Whether others invented the claimed  
05:03 13 invention at roughly the same time;  
05:03 14                  Whether others copied the claimed  
05:03 15 invention;  
05:03 16                  Whether there were damages -- I'm  
05:03 17 sorry -- whether there were changes or related  
05:03 18 technologies or market needs contemporaneous with the  
05:03 19 claimed invention;  
05:03 20                  Whether the claimed invention achieved  
05:03 21 unexpected results;  
05:03 22                  Whether others in the field praised the  
05:03 23 claimed invention;  
05:03 24                  Whether persons having ordinary skill in  
05:03 25 the art of the invention expressed surprise or

05:03 1 disbelief regarding the claimed invention;

05:03 2 Whether others sought or obtained rights

05:03 3 to the patent from the patentholder; and,

05:03 4 Whether the inventor proceeded contrary

05:03 5 to accepted wisdom in the field.

05:03 6 In determining whether the claimed

05:03 7 invention was obvious, consider each claim separately,

05:03 8 but understand that if a dependent claim is obvious,

05:03 9 then the claims from which it depends are necessarily

05:03 10 obvious as well.

05:03 11 What is it meant by level of ordinary

05:03 12 skill?

05:03 13 In deciding what the level of ordinary

05:03 14 skill in the field of rotorcraft flight, you should

05:03 15 consider all the evidence introduced at trial,

05:03 16 including but not limited to:

05:03 17 (1) The levels of education and

05:04 18 experience of the inventor and other persons actively

05:04 19 working in the field;

05:04 20 (2) The types of problems encountered in

05:04 21 the field;

05:04 22 (3) Prior art solution to the problems;

05:04 23 and,

05:04 24 (4) The rapidity with which innovations

05:04 25 are made; and,

05:04 1 (5) The sophistication of the technology.

05:04 2 In considering whether the claimed

05:04 3 invention was obvious, you must first determine the

05:04 4 scope and content of the prior art.

05:04 5 Scope and content of the prior art for

05:04 6 deciding whether the invention was obvious includes at

05:04 7 least prior art in the same field as the claimed

05:04 8 invention.

05:04 9 It also includes prior art from different

05:04 10 fields that a person of ordinary skill in the art would

05:04 11 have considered when trying to solve the problem

05:04 12 addressed by the invention.

05:04 13 Where a defendant is relying on prior art

05:04 14 that was not considered by the PTO during examination,

05:04 15 you may consider whether the prior art is significantly

05:04 16 different and more relevant than the prior art the PTO

05:04 17 did consider.

05:04 18 If you decide it is different and more

05:04 19 relevant, you may weigh that prior art more heavily

05:04 20 when considering whether the challenger has carried its

05:04 21 clear-and-convincing burden of proving invalidity.

05:05 22 If you find that DJI infringed any

05:05 23 claim -- any valid claim of the '909 patent and the

05:05 24 '752 patent, you must then consider what amount of

05:05 25 damages to award to the plaintiff.

05:05 1 I'm going to instruct you now about the  
05:05 2 measure of damages. Let me say this: By instructing  
05:05 3 on damages, I'm not suggesting which party should win  
05:05 4 the case on any issue.

05:05 5 If you find that the defendant has not  
05:05 6 infringed any valid claim of the patent, then plaintiff  
05:05 7 is not entitled to any damages.

05:05 8 The damages you award must be adequate to  
05:05 9 compensate Textron Innovations for the infringement if  
05:05 10 they prove it. They are not meant to punish the  
05:05 11 defendant.

05:05 12 Your damages award, if you reach that  
05:05 13 issue, should not -- should put the plaintiff in  
05:05 14 approximately the same financial position you believe  
05:05 15 it would have been in had the infringement not  
05:05 16 occurred.

05:05 17 Plaintiff has the burden to establish the  
05:05 18 amount of damages by a preponderance of the evidence.  
05:05 19 You should award only those damages that plaintiff  
05:06 20 establishes are more likely than not that it has  
05:06 21 suffered.

05:06 22 While plaintiff is not required to prove  
05:06 23 the amount of damages with mathematical precision, it  
05:06 24 must prove them with reasonable certainty. You may not  
05:06 25 award damages that are speculative, only possible or

05:06 1 that are based on guesswork.

05:06 2 In this case, plaintiff seeks a  
05:06 3 reasonable royalty. Reasonable royalty is defined as  
05:06 4 the amount of money that a plaintiff and defendant  
05:06 5 would have agreed upon as a fee for use of the  
05:06 6 invention at the time just prior to when infringement  
05:06 7 began.

05:06 8 You must be careful to ensure that the  
05:06 9 award is no more and no less than the value of the  
05:06 10 patented invention. I will give you more detailed  
05:06 11 instructions with respect to damages shortly. Know,  
05:06 12 however, that plaintiff is entitled to recover no less  
05:06 13 than a reasonable royalty.

05:06 14 A royalty is a payment made to a  
05:06 15 patentholder in exchange for the right to make, use,  
05:06 16 sell or import the claimed invention.

05:06 17 A reasonable royalty is the amount of  
05:07 18 royalty payment that a patentholder and the alleged  
05:07 19 infringer would have agreed to in a hypothetical  
05:07 20 negotiation taking place at a time prior to when the  
05:07 21 infringement first began.

05:07 22 In considering this hypothetical  
05:07 23 negotiation, you should focus on what the expectation  
05:07 24 of the patentholder and the alleged infringer would  
05:07 25 have been had they entered into an agreement at that

05:07 1 time and had they acted reasonably in the negotiations.  
05:07 2 In determining this, you must assume that  
05:07 3 both parties believed the patent was valid and  
05:07 4 infringed and that both parties were willing to enter  
05:07 5 into the agreement.

05:07 6 The reasonable royalty you determine must  
05:07 7 be a royalty that would have resulted from the  
05:07 8 hypothetical negotiation and not simply a royalty that  
05:07 9 one or the other party would have preferred.

05:07 10 Evidence of the things that happened  
05:07 11 after the infringement first began can be considered in  
05:07 12 evaluating the reasonable royalty only to the extent  
05:07 13 that the evidence aids in assessing what royalty would  
05:07 14 have resulted from the hypothetical negotiation just  
05:07 15 prior to the first infringement.

05:07 16 In determining the reasonable royalty,  
05:07 17 you should consider all the facts known and available  
05:07 18 to the parties. Some of the factors that you can  
05:08 19 consider in your determination are:

05:08 20 The value that the claimed invention  
05:08 21 contributes to the accused product;

05:08 22 The value that factors other than the  
05:08 23 claimed invention contribute to the accused product.

05:08 24 The so-called Georgia-Pacific factors,  
05:08 25 which can be considered in appropriate cases to inform

05:08 1 the hypothetical negotiation, including the following:

05:08 2                   Royalties received by the patentee for

05:08 3 the licensing of the patents-in-suit, proving or

05:08 4 tending to prove an established royalty;

05:08 5                   The rates paid by the licensee for the

05:08 6 use of other patents comparable to the patent in this

05:08 7 case;

05:08 8                   The nature and scope of the license, as

05:08 9 exclusive or nonexclusive, or as restricted or

05:08 10 non-restricted in terms of territory or with respect to

05:08 11 whom the manufactured product may be sold;

05:08 12                   The licensor's established policy and

05:08 13 marketing program to maintain his or her patent

05:08 14 monopoly by not licensing others to use the invention

05:08 15 or by granting licenses under special conditions

05:08 16 designed to preserve that monopoly;

05:08 17                   The commercial relationship between the

05:09 18 licensor and licensee, such as whether they are

05:09 19 competitors in the same territory in the same line of

05:09 20 business, or whether they are inventor and promoter;

05:09 21                   The effect of selling the patented

05:09 22 specialty in promoting sales of other products of the

05:09 23 licensee, the existing value of the invention to the

05:09 24 licensor as a generator of sales of the non-patented

05:09 25 items, and the extent of such derivative or convoyed

05:09 1 sales;

05:09 2 The duration of the patent and the term

05:09 3 of the license;

05:09 4 The established profitability of the

05:09 5 product made under the patents and its commercial

05:09 6 success and its current popularity;

05:09 7 The utility and advantages of the

05:09 8 patented property over the old modes or devices, if

05:09 9 any, that have been used for working out similar

05:09 10 results;

05:09 11 The nature of the patented invention, the

05:09 12 character of the commercial embodiment of it as owned

05:09 13 and produced by the licensor, and the benefits to those

05:09 14 who have used the invention;

05:09 15 The extent to which the inventor has made

05:09 16 use of the invention and any evidence probative of the

05:09 17 value of that use;

05:09 18 The portion of the profit or of the

05:10 19 selling price that may be customary in the particular

05:10 20 business or in comparable businesses to allow for the

05:10 21 use of the invention or analogous inventions;

05:10 22 The portion of the realizable profit that

05:10 23 should be credited to the invention as distinguishable

05:10 24 from non-patented elements, the manufacturing process,

05:10 25 business risks or significant features or improvements

05:10 1 added by the infringer;

05:10 2 The opinion and testimony of qualified  
05:10 3 experts;

05:10 4 The amount that a licensor, such as the  
05:10 5 patentee, and the licensee, such as the infringer,  
05:10 6 would have agreed upon at the time the infringement  
05:10 7 began if both had been reasonably and voluntarily  
05:10 8 trying to reach an agreement; that is, the amount which  
05:10 9 a prudent licensee -- who desired, as a business  
05:10 10 proposition, to obtain a license to manufacture and  
05:10 11 sell a particular article embodying the patented  
05:10 12 invention -- would have been willing to pay as a  
05:10 13 royalty and yet be able to make a reasonable profit and  
05:10 14 which amount would have been acceptable by the prudent  
05:10 15 patentee who was willing to grant a license.

05:10 16 No one factor is dispositive, and you can  
05:11 17 and should consider the evidence that has been  
05:11 18 presented to you in this case on each of these factors.

05:11 19 You may also consider any other factors  
05:11 20 which in your mind would have increased or decreased  
05:11 21 the royalty the alleged infringer would have been  
05:11 22 willing to pay and the patentholder would have been  
05:11 23 willing to accept, acting as normally prudent business  
05:11 24 people.

05:11 25 In determining the amount of damages, you

05:11 1 must determine when the damages began. If damages are  
05:11 2 awarded for direct infringement, the party -- the  
05:11 3 parties agree damages will begin on July 19th, 2015,  
05:11 4 for defendants' alleged direct infringement of the '909  
05:11 5 patent and October 20th, 2015, for defendants' alleged  
05:11 6 direct infringement of the '752 patent.

05:11 7 If damages are awarded for induced  
05:11 8 infringement, the date damages began would depend on  
05:11 9 defendants' knowledge, which the parties dispute.

05:11 10 Damages for induced infringement would  
05:11 11 begin no sooner than July 19th, 2021, when plaintiff  
05:12 12 filed its complaint in this case.

05:12 13 In determining a reasonable royalty, you  
05:12 14 may also can consider evidence concerning the  
05:12 15 availability and cost of acceptable noninfringing  
05:12 16 substitutes to the patented invention. An acceptable  
05:12 17 substitute must be a product that does not infringe the  
05:12 18 patent.

05:12 19 Damages are not based on hindsight  
05:12 20 evaluation of what happened, but on what the parties to  
05:12 21 the hypothetical license negotiations would have agreed  
05:12 22 upon. Nonetheless, evidence relevant to the  
05:12 23 negotiation is not necessarily limited to facts that  
05:12 24 occurred on or before the date of the hypothetical  
05:12 25 negotiation.

05:12 1 You may also consider information the  
05:12 2 parties would have foreseen or estimated during the  
05:12 3 hypothetical negotiation, which may under certain  
05:12 4 circumstances include evidence of usage after  
05:12 5 infringement started, license agreements entered into  
05:12 6 by the parties shortly after the day of the  
05:12 7 hypothetical negotiation and profits earned by the  
05:12 8 infringer and noninfringing alternatives.

05:12 9 A reasonable royalty can be paid either  
05:13 10 in the form of a one-time, lump-sum payment or as a  
05:13 11 running royalty. Either method is designed to  
05:13 12 compensate the patentholder based on the infringer's  
05:13 13 use of the patented technology. It is up to you, based  
05:13 14 on the evidence, to decide what type of royalty, if  
05:13 15 any, is appropriate in this case.

05:13 16 Reasonable royalty awards may take the  
05:13 17 form of a lump-sum payment. A lump-sum payment is  
05:13 18 equal to the amount that defendant would have paid at  
05:13 19 the time of the hypothetical negotiation for a license  
05:13 20 covering all allegedly infringing defendant sales, both  
05:13 21 past and future. When a lump sum is paid, the  
05:13 22 infringer pays a single price for a license covering  
05:13 23 both past and future infringing sales.

05:13 24 Reasonable royalty awards may also take  
05:13 25 the form of a running royalty based on the revenue from

05:13 1 or the volume of sales of the licensed product. A  
05:13 2 running royalty can be calculated, for example, by  
05:13 3 multiplying a royalty base by a royalty rate or by  
05:13 4 multiplying the number of infringing products or  
05:13 5 product units sold by a royalty amount per unit.

05:14 6 The amount that you find as damages must  
05:14 7 be based on the value attributable to the patented  
05:14 8 invention, as distinct from the unpatented features of  
05:14 9 the accused products or other factors such as marketing  
05:14 10 or advertising or defendants' size or market position.

05:14 11 A royalty compensating the patentholder  
05:14 12 for damages must reflect the value attributable to the  
05:14 13 infringing features of the product, no more.

05:14 14 The process of severing the value of the  
05:14 15 allegedly infringing features from the value of all  
05:14 16 other features is called apportionment. When the  
05:14 17 accused infringing product have both patented and  
05:14 18 unpatented features, your award must be apportioned so  
05:14 19 that it is based only on the value of the patented  
05:14 20 features and no more.

05:14 21 Any confusion or difficulties caused by a  
05:14 22 defendants' record should be held against defendant,  
05:14 23 not plaintiff. The burden of proving damages is always  
05:14 24 still on plaintiff, however.

05:14 25 Okay. So we will do closing arguments

05:15 1 tomorrow morning at 9:00. After we finish the closing  
05:15 2 arguments, it will then be your duty to deliberate and  
05:15 3 consult with each other in an effort to reach a  
05:15 4 verdict.

05:15 5 Let me make clear to you. Each of you  
05:15 6 must decide the case for yourselves after an impartial  
05:15 7 consideration of the evidence with each other. During  
05:15 8 your deliberations do not hesitate to re-examine your  
05:15 9 own opinions and change your mind if you are convinced  
05:15 10 that your own opinion is wrong. But never give up your  
05:15 11 own honest beliefs because others think differently or  
05:15 12 just to finish the case. Remember you are the judges  
05:15 13 of the facts.

05:15 14 You've been allowed to take notes during  
05:15 15 the trial. If you took notes during the trial, they  
05:15 16 are only aids to memory. If your memory differs from  
05:15 17 your notes, rely on your memory, not your notes. The  
05:15 18 notes are not evidence.

05:15 19 If you did not take notes, rely on your  
05:15 20 independent recollection of the evidence and don't be  
05:15 21 unduly influenced by others' notes. Notes are never  
05:16 22 entitled to greater weight than the recollection or  
05:16 23 impression of each of you about the testimony.

05:16 24 Okay. Let me tell you -- I'll tell  
05:16 25 briefly and then I'll remind you tomorrow afterwards.

05:16 1 What will happen after the lawyers do their closing  
05:16 2 arguments is you will go retire back to the jury room.  
05:16 3 We will get to you virtually immediately the exhibits  
05:16 4 because they're electronic. And you'll have a way of  
05:16 5 looking at them back there. So you'll have them  
05:16 6 virtually instantaneously.

05:16 7 Remember also, during the course of the  
05:16 8 trial there were demonstrative exhibits. They were not  
05:16 9 admitted. You won't have them tomorrow. So  
05:16 10 occasionally I have jurors asking we saw something, we  
05:16 11 can't find it. It's probably because it was a  
05:16 12 demonstrative exhibit.

05:16 13 You will have all of the exhibits that  
05:16 14 were admitted into evidence. And as you heard me read,  
05:16 15 that is what you base your decision on.

05:17 16 The first thing that you'll do tomorrow  
05:17 17 is take -- we have note paper back there. You will  
05:17 18 select a foreperson. That foreperson will fill out a  
05:17 19 note. And what I learned in the last trial I need to  
05:17 20 make clear, we won't know that you've done that unless  
05:17 21 you give us the note.

05:17 22 So it's not enough for you all just to  
05:17 23 select a jury foreperson and not tell us. You have to  
05:17 24 select a jury foreperson and hand the note to the  
05:17 25 person outside the door which allows us to know that we

05:17 1 have a foreperson.

05:17 2 And so once you have a foreperson  
05:17 3 selected, and you have -- and the exhibits are already  
05:17 4 back there, at that point you begin to deliberate. And  
05:17 5 from then on you will -- it's whatever amount of time  
05:17 6 you need to deliberate.

05:17 7 If during the course of your  
05:17 8 deliberations you -- one of you says, I have a question  
05:17 9 that we need to ask the Court, the foreperson will  
05:17 10 take, again, a piece of note paper. They'll write the  
05:17 11 question out, hand it to hopefully this handsome  
05:18 12 gentleman or one of our other CSOs. And they'll bring  
05:18 13 it to me.

05:18 14 I will let the lawyers know what the  
05:18 15 question is. I will write out a response. And I will  
05:18 16 give it back to you -- him, and he will give it back to  
05:18 17 the foreperson. And y'all will have the response.

05:18 18 And that's usually very quickly done.  
05:18 19 And so you, generally speaking, won't have to wait very  
05:18 20 long to get an answer to your questions.

05:18 21 The bottom line is, for tonight I'm not  
05:18 22 sure how you get out of here. But it looks like we  
05:18 23 might need an ark. But hopefully you all will be safe  
05:18 24 tonight as you leave.

05:18 25 We'll start tomorrow morning -- if you'll

05:18 1 be here by about 8:45, we'll do the closing arguments  
05:18 2 at 9:00. Each side will have about a half hour. So  
05:18 3 you will begin deliberating shortly after 10 o'clock.

05:18 4 I think that's all that we have for you.  
05:18 5 Again, please be careful out there. And we will --  
05:19 6 remember, I know it's tempting, we're near the end.  
05:19 7 You can't talk about the case yet because you haven't  
05:19 8 heard the closing arguments.

05:19 9 Please don't do any independent  
05:19 10 investigation. And please don't post anything about  
05:19 11 the case.

05:19 12 But tomorrow you'll begin your  
05:19 13 deliberations. And then you'll get to talk to each  
05:19 14 other as much as you want to about what you heard this  
05:19 15 week.

05:19 16 Have a good evening.

05:19 17 THE BAILIFF: All rise.

05:19 18 (Jury exited the courtroom.)

05:19 19 THE COURT: Gentlemen and ladies,  
05:19 20 anything we need to take up?

05:19 21 MR. MEEK: Nothing from plaintiff, Your  
05:19 22 Honor.

05:19 23 THE COURT: All right. I'm pretty sure I  
05:19 24 told you this, but -- you may be seated -- you don't  
05:19 25 need to exchange slides tonight. Just come and give

05:20 1 your closing argument.

05:20 2 And I'll be here as usual, although there  
05:20 3 shouldn't be anything to take up because, you know, you  
05:20 4 aren't going to have anything from the other side to  
05:20 5 complain about. So if you're here by 9:00, we should  
05:20 6 get started then.

05:20 7 And is there anything that we do need to  
05:20 8 take up? I don't think so.

05:20 9 MR. SCHROEDER: The only thing, Your  
05:20 10 Honor, is once we send the jury back there was going to  
05:20 11 be a snippet where we were going to do an additional  
05:20 12 testimony on that inequitable conduct issue. That's  
05:20 13 it.

05:20 14 THE COURT: Sure. That's right. I don't  
05:20 15 need to hear from your expert on inequitable conduct.

05:20 16 And so --

05:20 17 MR. SCHROEDER: We took the Court's  
05:20 18 guidance and decided not to bring him.

05:20 19 THE COURT: Okay. And so that -- this  
05:20 20 will go -- it will go pretty quickly. I can assure  
05:20 21 you.

05:20 22 So unlike the jury, who I know that each  
05:20 23 of you feels like if something's worth being asked  
05:20 24 once, it's worth being asked nine times, the problem I  
05:20 25 had as a lawyer, I don't really need to hear it nine

05:21 1 times. We'll move through it pretty quickly, I promise  
05:21 2 you.

05:21 3 So we'll see you tomorrow.

05:21 4 THE BAILIFF: All rise.

05:21 5 (Hearing adjourned.)

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1 UNITED STATES DISTRICT COURT )  
2 WESTERN DISTRICT OF TEXAS )  
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5 I, Kristie M. Davis, Official Court  
6 Reporter for the United States District Court, Western  
7 District of Texas, do certify that the foregoing is a  
8 correct transcript from the record of proceedings in  
9 the above-entitled matter.

10 I certify that the transcript fees and  
11 format comply with those prescribed by the Court and  
12 Judicial Conference of the United States.

13 Certified to by me this 30th day of April  
14 2023.

15 /s/ Kristie M. Davis  
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